

Clinical Medicine and Surgery

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★ Editorial ★

Francis Galton

Father of Eugenics

THE FACT that no science is or can be independent of all the others, is illustrated by the circumstance that the foundations for many of the greatest advances in the scientific aspects of Medicine have been laid by men who were not physicians.

Francis Galton, a cousin of the famous Darwin, was born in Birmingham, England, in 1822, and received his formal education at King Edward's School, the Birmingham General Hospital, King's College, London, and Trinity College, Cambridge, from which last-named institution of learning he received the degree of a Bachelor of Arts, in 1844.

The variegated nature of his schooling may have had something to do with the versatility which he later exhibited, though this quality is not uncommon in men who have achieved reputation and honor.

From 1846 to 1852, he was engaged in explorations in Africa, some of which, notably those in Damaraland (German Southwest Africa), resulted in the first information available to the world regarding the parts of the country he had traveled. His experiences were recorded in several books which were widely popular in the middle of the Nineteenth Century.

He then turned his attention to Meteorology and, in 1863, worked out the first

graphic system for mapping the weather, which was the basis for the weather maps with which we are all familiar.

In the late eighteen sixties, Galton entered upon the work for which he will be chiefly remembered, and in which the rest of his life was spent, by following up the anthropologic and biologic studies which he had begun in Africa.

His first book in this field ("Hereditary Genius") was published in 1869 (reissued in 1914), and must have shown him that much was still to be learned along these lines, for in 1871 he began to study heredity experimentally, and in 1873 he first began to apply statistics to anthropology.

His "English Men of Science" appeared in 1874, and "Inquiries into Human Faculty" in 1883. In this latter volume he discussed such topics as color blindness, the ability to distinguish high tones (he had to invent an apparatus for making such measurements, which is still in wide use as Galton's *whistle*), criminality and insanity, mental imagery, the relative sensitiveness of savage and civilized persons, and others which were new to the then-current thought.

In 1883 he issued his blank "Record of Family Faculties," 150 of which were filled out and sent to him for study. The results of these studies were embodied in the book,

"Natural Inheritance" (1889), in which he derived, by statistical induction, the law of filial regression and ancestral inheritance (*Galton's Law*), which has been fully confirmed by later students.

His works, "Finger Prints" (1892) and "Index of Finger Prints" (1895), were the first important contributions to that subject, which has since taken such an important place in the identification of criminals and may well be put to more general uses, after those of Purkinje, in 1823.

The latter half of Galton's long, full, and useful life, which came to a close in 1911, was devoted to the study of inheritance and to efforts to formulate it as a science, in exact, quantitative terms. This new science he named *Eugenics*. In 1901, he, with Pearson and Weldon, founded the journal, *Biometrika*, for the study of biologic problems by advanced statistical methods, and in 1904 he established a laboratory for eugenics at University College, London. His collection of addresses "Essays in Eugenics," was published in 1909, when he was 87 years old.

We have, as yet, made little practical use of the intensely vital and human science to which Francis Galton gave birth and a name, but when it is widely applied and is in process of remaking the human race in a nobler mold (as may well happen in the not-very-distant future), this far-visioned genius and tireless and enthusiastic worker in many fields may receive the meed of fame which is due him.

The education of every man should begin at least seven hundred years before he is born.—U. B. CXXVII.

Freedom and Independence

ON THE FOURTH DAY of July, 1776 (one hundred and sixty-two years ago), a group of fifty-six courageous men signed a document which materially altered the course of the world's history. This remarkable state paper is known as the *Declaration of Independence*, and was supposed to make the people of the United States free and independent of all other nations, but especially of Great Britain.

Now, freedom and independence mean more than simply a severance of political ties. After this famous document was ratified we were technically and politically independent of our mother country, but we were not so in fact. We still depended upon her for our culture, the basis of our laws,

our literature, and most of the comforts and conveniences which redeemed the lives of our forefathers from the rigors of a more or less raw and semi-barbarous existence.

For many centuries no nation has been independent of other nations, except in the narrowest political sense, and the world is even more closely tied together now than it ever has been in the past. We depend upon the East Indies for most of our rubber; on Mexico for much of our oil; on the West Indies and South America for a good deal of our sugar and coffee; on Japan for the greater part of our tea and silk; and so on, until a reasonably complete list of the material things representing our dependence would fill a considerable volume—to say nothing of the imponderables, such as music, literature, scientific discoveries, and intellectual and emotional stimulation, furnished to us by other nations.

Our Congress constantly (if not always wisely) considers the reactions which its enactments will produce in other countries; and we may be sure that all of the foreign governments have the United States in mind when their law-making bodies are in operation.

Let us not make the rather puerile mistake of flattering ourselves that we are, in truth, an independent nation, even though, in the present circumstances, it might seem highly desirable that we should be so.

As for freedom, that is a still more unusual possession. The enormous majority of the world's inhabitants, even in those countries where the greatest latitude is allowed to the individual, are in bondage to their heredity, their environment, their fears, their habits, their superstitions; to public opinion, the established conventions, and to their own inertia.

Individual independence does not consist in thumbing one's nose at the rest of the world, and is a mere form of words, unless we would be willing to set the clock of time back a few hundred years, to the days when every man was his own carpenter, cabinet-maker, weaver, tailor, cobbler, baker, plowman, cook, and artisan of all the other various types which are now so thoroughly specialized.

And yet, while we must depend upon others for the physical mechanisms of our daily lives, both personal and national, we can develop an independence of thought and spiritual vision which will free us from many errors and inconsistencies. Individually we can cultivate our intellectual and

emotional powers to the point where we do not have to look to others, or to any extraneous circumstance, for basic ideas, our joy, and our entertainment. And that is very well worth doing.

Freedom is not synonymous with license, and is attained only by learning the laws of nature and conforming our lives to their activities. We can conquer life only by obeying its rules.

We cannot be free so long as we fear; and the only remedy for fear is *adequate* knowledge—not that little portion of “learning” which is a “dangerous thing.” We cannot be free so long as we are ignorant, bigotted, jealous, and envious. Freedom is an *inner* thing, which comes only when we realize that the material circumstances of our environment are but transitory appurtenances to our real lives, and can look upon all of them with the same equanimity with which we contemplate discarding last-week’s newspaper.

Independence we cannot have, for the whole universe is a series of mutually interlocking parts; but freedom may be the possession of any man who desires it with sufficient ardor and concentration to pay the price in lesser things, which must be paid if we are to come into possession of this or any other worthy and valuable faculty or power.

All fear is mean distrust of God.—RABINDRANATH TAGORE.

Birth Control and Public Health

IT IS NOW LEGAL, under the Federal law, for all physicians to give direct and detailed information regarding the methods and technics of birth control to their patients, whenever they consider it advisable to do so, and to prescribe such methods, drugs, and devices as may be required; and in only three states (Connecticut, Massachusetts, and Mississippi) are there laws which could possibly embarrass a medical man in performing this part of his duties, though in several states the laws need clarifying and modernization, to conform to the Federal rulings and the dictates of public opinion and common sense.

But this is only the first step in the process of making this truly civilized “fifth biologic invention” available to all the women of the nation on an equal footing, so

that every child born may be a *wanted* child. Every physician must make full and intelligent use of the freedom which has tardily been granted him.

Even when this has been accomplished, however, there will still be thousands of women who urgently need such professional advice and assistance, but who, for lack of the money to pay even a very moderate fee, cannot obtain it.

Under private or quasi-public auspices, there are now about 350 birth-control centers in the country, where ten times that number are needed. There are 7,000 hospitals and 10,000 other agencies where mothers too poor to pay the fees of private physicians seek medical aid, and which *ought* to provide contraceptive service, but mostly do not.

The only adequate solution for this problem is the inclusion of birth-control service as a part of all public health programs, so that all the agencies falling under this category will be in a position to give this type of information and assistance as a part of their regular duties. North Carolina has the honor of being the first state to provide birth-control service through its State Department of Health and county physicians.

Those at the head of medical and health activities of national scope seem to manifest a disposition to side-step the issue by entangling the strictly *medical* aspect of the problem with its sociologic bearings, and thus to screen themselves from facing it directly, and only an aroused public opinion can, in all probability, force them to do this part of their duty.

Birth control is closely tied in with the matter of venereal disease prevention, which is coming in for so much publicity these days; and any plan for the reduction of maternal and infant mortality, which does not include the giving of contraceptive advice in its program, is incomplete and casuistic.

The duty of every individual practitioner of medicine is, first, to equip himself with the necessary knowledge of modern contraceptive methods and technics; second, to *use* that knowledge intelligently for the benefit of his patients; and, third, to spread the information that, if such knowledge is to be made available to those women who need it most, it must be made a part of the routine work of all national, state, and local health agencies.

"Heat Sickness"

DURING THE summer months, practically everyone who is at all active sweats quite profusely at times, and besides the cases of "heat prostration" (including both heat stroke and heat exhaustion), which are recorded in the newspapers during every particularly hot spell, there are thousands of minor cases of "heat sickness" (undue fatigue, lassitude, general exhaustion, and slight or severe muscular cramps), most of which are never even seen by a physician.

Until within the past few years, these symptoms have been accepted as concomitants of the weather, about which nobody can do much of anything, but now we know better.

In many industries it is necessary that certain men work in very hot places, and the loss of time and efficiency due to prostrations and agonizing muscular cramps became so heavy that the industrial physicians were forced to investigate the matter, and made some highly practical discoveries.

A healthy man or woman at vigorous exercise on a hot day or in a hot place, may sweat as much as from two to five pints an hour. The water so lost is easily and eagerly replaced by copious drinking; but even many physicians seem to forget that sweat is, not simply water, but approxi-

mately a one-percent solution of sodium chloride, so that the salt loss through the skin may amount, in extreme cases, to as much as 40 or 50 grams a day, to say nothing of that which passes out through the kidneys.

When we realize that the necessary sodium chloride reserve of a 160-pound man

is about 35 grams, and that the average daily intake and exchange of salt is about 20 grams, it is easy to see that, when one is sweating heavily and ingesting only the average amount of salt, the sodium chloride reserve might be reduced almost to the vanishing point, with serious, or even fatal results.

Up-to-date industrialists are now installing, alongside of their drinking fountains, especially in departments where the temperature is high, machines which dispense 10- or 15-grain compressed tablets of salt, with instructions to the workers to take from two to six of these during the day, when they are sweating heavily.

Physicians in general clinical practice can

render a helpful service to their patients and other friends by reminding them of the physiologic facts here mentioned and by advising them to take a teaspoonful or two of salt or several of these salt tablets, on summer days when they are exercising vigorously and sweating more or less profusely.

NEXT MONTH

Drs. Emerick Friedman, of Greenwich, Conn., and Nathan W. Ackerman, of New York City, will present a detailed discussion of the newer methods of treating schizophrenia, with insulin, Metrazol, and camphor-Metrazol.

Drs. Harry E. Bacon, of Philadelphia, Pa., and Theodore F. Reuther, of Effingham, Ill., will offer a new and practical classification of anal, rectal, and sigmoidal prolapse and proctidial.

Dr. Frederick A. Causey, of Lincoln, Ill., will report the results of treating pyogenic infections with a polyvalent antibacterial agent.

COMING SOON

"Occult Cerebral Hemorrhage of Traumatic Origin (A Case Report)," by Roy S. Hubbs, M.D., Sheridan, Wyo.

"The Pathologic Gallbladder: Views on Diagnosis and Treatment," by I. S. Trostler, M.D., F.A.C.R., F.A.C.P., Chicago, Ill.

WORLD'S MAGIC

*One wind-swept morning, for an hour,
I touched the skirt of Rapture.
My heart was open like a cup.
The world poured in and filled it up
With all my soul could capture.
And love and morning and a flower
Held all I need of magic power.*

G. B. L.

* Leading Articles *

Carcinoma of the Colon and Rectum (Diagnosis)

By CHARLES J. DRUECK, M. D., F. A. C. S., Chicago

CARCINOMA may occur in any part of the colon or rectum, but is most frequent at the junction of the descending colon and sigmoid, in the rectum, and at the splenic flexure.

The etiology of carcinoma of the large bowel is obscure, as is that of carcinoma elsewhere, but since it begins in the mucous membrane it seems probable that chronic inflammatory disturbances are the forerunners. These inflammatory and neoplastic changes in the mucosa of the bowel may remain non-malignant for a variable length of time—a few months or several years—and many are found at postmortem in those who have died of non-intestinal diseases.

Pathology

There are several types of benign tumors which develop in the terminal bowel. They are usually pedunculated, but the entire group is rare. The more frequent neoplasm of the colon and rectum is the malignant tumor adenocarcinoma, except those occurring in the anal canal, which are squamous-cell epitheliomas. The malignant neoplasm begins in the mucosa or submucosa; its intraluminal development is sessile, on a broad base which soon ulcerates and which extends deeply into the coats of the bowel, even to the peritoneal coat.

Types of Growth

When malignant disease is found in the digestive tract, it belongs to one of the following types:

First: The soft, gelatinous, or colloid growths, which occur usually in the right colon or cecum, are rapidly-growing, and proportionately highly malignant. They are rare.

Second: The polypoid or cauliflower tumor, which may be found in any part of the bowel, grows into the lumen of the gut, is easily abraded by the passing fecal stream, and by the expulsion of mucus and blood gives early evidence of its existence. These are said to be less malignant, though possibly that is because the early symptoms bring the patient to the examiner earlier.

Third: The annular, constricting, "nap-

kin ring" growth, in which the fibrous tissue largely predominates. This type occurs usually in the left colon or high in the sigmoid. It does not bleed and may be symptomless until it produces an acute intestinal obstruction, which unfortunately means an advanced stage.

Fourth: The ulcerating, crater-like neoplasm with a hard, nodular border. This type is usually found in the rectal ampulla. It bleeds when traumatized by the passing fecal mass and produces symptoms only when it has invaded the deep rectal walls, by which stage it has invaded the lymphatics.

All of the foregoing types are adenocarcinomas and differ only in the proportions of the several cellular elements.

Fifth: Malignant neoplasms at the anus and involving the perianal skin are epitheliomas (squamous-cell carcinomas).

Those carcinomas which build cauliflower masses into the lumen of the bowel usually have a more hopeful prognosis than those which develop deep craters.

The scirrhus or annular carcinoma has a better prognosis than the papillary or ulcerative types, while the colloid growths recur more frequently than the others.

This study of the pathologic processes involved is important from the standpoints of prognosis and treatment.

The symptoms produced by a neoplasm within the large bowel vary with the character, location, and stage of advancement of the growth.

All inflammatory disturbances of the bowel are associated with hypermotility and hypersecretion. If the irritation and inflammation of the mucosa be continued, hypertrophy occurs in some of the tissue elements and these later undergo ulceration. Here is the beginning of polyps and adenomas. This exaggerated segmentation of the bowel also predisposes to herniation in the segments and to the development of diverticula. Whenever the inflammation extends through the coats of the bowel we have localized peritonitis.

Right Colon

When the lesion occurs in the right colon and involves the cecum, ascending colon, or

the hepatic flexure, pain in the lower right abdomen is an early sign. This pain may be moderate in degree, intermittent in character, following after meals and associated with nausea and vomiting. Its history is very much like that of acute or chronic appendicitis, depending on the severity of the attack of pain, and the tumor mass may be mistaken for an appendiceal abscess. It may be only when the abdomen is opened that the true nature of the disease is revealed.

Left Colon and Rectum

When the growth occurs in the descending colon, where the constrictive type of carcinoma is generally found, obstructive symptoms and increasing constipation are the chief complaints. Vague symptoms may be complained of for years before the sudden onset of definite signs reveals the catastrophe.

In the rectum and the lower sigmoid, where the ulcerative type of lesion is encountered, associated pain is more frequent than in the other locations, except the constrictive cancer.

Irregularity of the bowel habit, characterized by diarrhea or constipation or alternating periods of the two over a short time (from one to four months) prior to consulting a physician, is an almost universal complaint.

Obstruction

Subacute or chronic obstruction of the colon is more commonly observed than acute obstruction, due to the relative frequency of lesions occurring in the large bowel which are slowly progressive and therefore obstruct the bowel gradually. Cancer of the colon stands first, with diverticulitis and ulcerative colitis appearing as occasional factors and, more rarely, acquired and congenital strictures of the rectum, Hirschsprung's disease, chronic granulomatous lesions, endometriosis, and benign polypoid tumors of the colon. There is one other disease which produces symptoms which may closely resemble those of large-bowel obstruction, and that is stone in the kidney.

Acute obstruction of the colon develops when any of the above factors completely occlude the bowel, or in uncommon conditions, such as congenital atresia of the rectum, volvulus of a redundant sigmoid or cecum, intussusception of a polypoid or cancerous tumor of the transverse colon or sigmoid, or strangulation of the colon in a sliding hernia or diaphragmatic hernia. Paralytic ileus from peritonitis, affecting both the small and large bowel, is perhaps in a category peculiar to itself.

The clinical picture of large bowel obstruction varies considerably from ileus of the small bowel, in that the symptoms of

obstruction develop slowly and distention is more pronounced and diffuse, while vomiting appears later, is less violent, and becomes fecal only when the small bowel eventually becomes dilated.

As a neoplasm, benign or malignant, develops on the bowel wall, it intrudes upon the bowel lumen by virtue of its size or by dragging the mucous membrane down as the peristaltic action moves the contents along. As the tumor becomes inflamed by ulceration, spasm of the gut occurs. This obstruction is at first only partial and produces but slight subjective signs. It does, however, produce profound physicochemical changes in the body chemistry which, by the time the patient presents himself, are evidenced by anemia, loss of weight, jaundice, and disturbance of function of the colon, all with an absence of fever and leukocytosis.

Obstruction contributes the major factor to the mortality of cancer of the lower bowel because, in its lesser degrees, it is not appropriately treated. The obstruction is mechanical and must be corrected by decompression of the bowel. The toxemia and hydration of the patient which invariably follow the continued presence of obstruction must also be relieved. A flat roentgenogram, competently interpreted with reference to fluid levels and distribution of gas, will assist the early diagnosis.

The preparation of these patients for operation is most important and will depend on their condition on admission to the hospital. When the patient is dehydrated, lost fluids and chlorides are to be replaced; and when debilitated, resistance must be increased by transfusion before operation is undertaken.

Pain

Pain as a symptom of tumor of the bowel, unfortunately, is late in occurring, is untrustworthy when present, and frequently is no index to the benignancy or malignancy of the growth or of its age, size, or degree of involvement. Until the neoplasm has advanced beyond the bowel wall and invaded some other viscera or nerve trunks, pain is usually absent. The rectum, situated in the middle of the pelvis, is in the so-called "silent area." Spasm of the sphincter muscles, sacral backache, and shooting pains down the hips, are not uncommonly found in epithelioma of the anal canal or in metastases from rectal growths.

As the obstruction becomes complete (acute), the classical symptoms very tardily come into appearance. The first is distention. Some patients rather proudly notice a fullness of the lower abdomen. A little later, colicky pains annoy the individual and active peristalsis may be visible and audible. If the growth is in the right colon the pain may be in the right lower quadrant

and arouse suspicion of appendicitis; if in the transverse colon, the pain is suspected of being in the stomach or gallbladder, because it will come on soon after eating. In the right colon, distention and colicky pain in the right abdomen are early symptoms, but since the gallbladder, duodenum, and appendix are here, these organs are first blamed. Enteritis and colitis, charged to indiscretions in eating, are also frequently offered as diagnoses. Because the hyperperistalsis is limited to the right colon, there is no hurrying of fecal content and no diarrheal evacuations. Neoplasms of the right colon are usually of the cauliflower type; they bleed but little; the blood is intimately mixed with the feces and partly digested before it is expelled, and therefore is not seen by the patient.

In the left colon, sigmoid, and rectal ampulla, obstruction may be an early or late symptom, depending upon the normal firmness of that individual's stools. The distended left bowel soon becomes parietic or atonic, fecal masses accumulate above the obstruction but are readily flushed out with enemas or with cathartics which liquefy the stool, and chronic constipation is blamed for the trouble. In the left colon we more usually meet the scirrhus or napkin-ring carcinoma, which bleeds little or not at all. In all of these regions, which are above the reach of the finger in the rectum, there may be considerable growth before anything is palpable through the abdominal wall, and it may be only after repeated careful manipulations, at different times and with the patient in different positions, that we are satisfied a neoplastic mass is palpable.

When the pain is low down in either the right or left abdomen, the possibility of hernia and, in the female, of tubal or ovarian disease, is suspected, and if either of these disturbances is found it further clouds

the picture. When confronted with evidence of obstruction, it may be well for one to remember that during childhood intussusception is the common cause; that during early adult life hernia and peritoneal adhesions are responsible for the majority of cases; while in late adult life carcinoma becomes the greatest causative factor.

In the lower rectum the bowel lumen is normally narrowed and a lesser degree of obstruction is recognized. Also, if the growth engages the levator ani or sphincter muscles, tenesmus and bleeding are reported. At this site the neoplasm may easily be felt and seen.

At the anus, an epithelioma is the most frequent malignant condition. It is hard and painful from the beginning and stenoses the anus quite early.

Bleeding

All tumors of the digestive tract will, at some time during their existence, exhibit blood independent of the defecation, mixed in the stool, or coating the surface of the fecal mass. In many cases the patient recognizes the blood. The presence of blood at the anus must never be considered an early symptom of any digestive disturbance. It always means that the necrosis has progressed until ulceration has invaded blood vessels and consequently has existed for a considerable period.

The inflamed mucosa is edematous, soggy, and brittle, and therefore more easily traumatized and made to bleed than is the normal mucosa. In all cases of colitis, adenomas, polyps, and cancers of the colon, blood may be found in the stools. It may be occult or gross, or absent in one specimen and present in another, but repeated examinations will find it.

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REALITY OF THE INTANGIBLES

Spirit, personality, and all those abstract conceptions which go with it, like love, duty, beauty, exist for you and for me just as much as do iron, wood, and water. They are in every way as real for use as are the physical things which we handle . . . Materialism, as commonly understood, is an altogether absurd and utterly irrational philosophy, and is indeed so regarded, I believe, by most thoughtful men.—ROBERT A. MILLIKAN, Ph.D., in *The Commentator*, June, 1937.

FREE GOVERNMENT

Free enterprise and free government must stand or fall together. You cannot abolish one and maintain the other. There is and there can be no such thing as a regimented democracy. Either the State must be the servant of the people, or the people must be the servants of the State. Since eternal vigilance is the price of liberty, let us never forget that Democracy has perished wherever economic freedom has been destroyed.—JAMES H. R. CROMWELL.

Ptosis of the Kidney

With Particular Reference to Its Diagnosis and Treatment in the Obese Patient*

By CHARLES PIERRE MATHÉ, M.D., F. A. C. S., San Francisco, Calif.

FOR the past fifty years, ptosis of the kidney has been recognized as a clinical entity causing definite symptoms. In spite of this fact, many practitioners overlook it, and even some urologists fail to recognize this condition. This is due to meager knowledge of its symptoms and to inadequate methods of diagnosis.

In articles written upon ptosis of the kidney I have repeatedly emphasized the fact that descent of the kidney alone does not necessarily produce trouble; however, in a certain group of patients, it causes a definite chain of symptoms which should always lead to its recognition. These consist of pain, gastro-intestinal symptoms, nervous phenomena and, more rarely, urologic symptoms consisting of hematuria, due to strangulation of the kidney, and chills and fever, dysuria, frequency, nycturia, etc., due to accompanying urinary infection.

The patient suffering from ptosis of the kidney is usually of the thin, ptotic type, with a long, narrow body, in whom the offending kidney is easily palpable. However, there remains another group, consisting of obese patients in whom the kidney becomes dislodged and, because of the fact that this organ cannot be palpated, renal ptosis, in these cases, is often overlooked. These patients are often treated, medically and surgically, for cholecystitis, appendicitis, ulcer of the stomach, salpingitis, adhesions in the abdomen, etc., without relief. Some of these patients suffer for years, until the attending physician stumbles upon the offending ptotic kidney.

The purpose of this paper is to point out the symptoms that the obese patient suffering from ptosis of the kidney presents, thereby enabling the general practitioner to suspect this condition and to take the necessary steps for making a complete urologic examination, by virtue of which a positive diagnosis can be obtained and the proper treatment instituted.

Case Report

Mrs. E. D., aged 31, weight 194 pounds, was referred for repeated attacks of pain in the right lumbar region and right upper abdominal quadrant. For the past two years

she has suffered from attacks of Dietl's crisis, extending from the right lumbar region and the right upper abdominal quadrant to the inguinal region. Some of the attacks were accompanied by chills and fever. The pain was relieved by lying down and aggravated by exercise, long automobile rides, and being on her feet over long periods of time. The patient was seen by a urologist, who diagnosed ptosis of the right kidney. She was given a belt and, although already quite robust, she was placed on a high-caloric diet, under which she gained considerable weight, but the attacks of pain continued and she was referred to me for surgical relief.

I was unable to palpate the kidney, on account of a thickened abdominal wall, but tenderness was elicited in the right costovertebral angle. A urologic examination confirmed the former diagnosis of second-degree ptosis and torsion of the right kidney. A pyelogram, taken in the vertical position, showed a downward excursion of the kidney for a distance of 5 cm., and early hydronephrosis (See Fig. 1).

In exposing the kidney at the time of operation, a large amount of fat was encountered in the subcutaneous tissue of the loin, and the perirenal fat was quite extensive. A condition of torsion, as well as ptosis, was encountered. A number of adherent bands that were found to be definitely kinking the ureter were divided. Eight nerve filaments surrounding the renal artery were incised. The kidney was suspended according to my technic. Following nephropexy and renal sympathectomy, the pain and extreme sensitiveness of the right kidney disappeared and the patient has continued to remain pain-free and is now able to live a normal life (See Fig. 2).

Symptoms

The symptoms of ptosis of the kidney in the obese patient were mentioned early in this article, but need some discussion.

Pain is of two varieties: (1) Typical attacks of Dietl's crisis, commencing in the lumbar region or the upper or lower abdominal quadrant, depending upon the location of the kidney; and (2) more or less continuous, dull, dragging pain, or a sensation of fullness in the lumbar region or upper and lower abdominal quadrants. The attacks of Dietl's crisis come on at intermittent intervals, varying from days to months. The pain is sharp and intense, commencing in the lumbar region, and radiates along

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Fig. 1.—Standing pyelogram of an obese female, aged 31, presenting repeated attacks of Dietl's crises. Note third-degree ptosis, with kinking of the ureter and beginning hydronephrosis, at the left in the picture.

the course of the ureter, downward and forward to the labium, testis, or thigh. The standing posture, menstruation, and exercise especially aggravate it, and it is usually relieved or lessened when the patient reclines or is placed in the horizontal or Trendelenburg position. Nausea, vomiting and profuse perspiration often accompany the more severe attacks. During an attack it is not uncommon for hematuria to be present, and the presence of blood points to the kidney as the offending organ.

Hematuria is confusing as it is so often associated with calculus formation, tuberculosis, or tumor. I found it to be present in 13 percent of 400 cases on which I performed nephropexy for ptosis of the kidney. In many of these patients, the hematuria is microscopical in character and can be ascertained only by making a careful, complete examination of the urine.

Patients presenting Dietl's crisis offer an easier problem for diagnosis than those suffering from pain of the dull variety. In the latter group of patients, the pain may be located in the lumbar region or in the upper or lower abdominal quadrant, depending upon the position of the kidney, and may or may not radiate.

When this pain is located in the upper abdominal quadrant, ptosis of the kidney may be confused with cholecystitis, colitis, ulcer of the stomach, etc.; and when it is located in the lower portion of the abdomen,

it may be confused with appendicitis, oöphoritis, salpingitis, colitis, gastroenteritis, etc. I have observed many patients suffering from ptosis, who have been subjected to a number of operations on the abdominal organs without relief. Some of these were reoperated upon for abdominal adhesions, still without relief. One must realize, however, that coexisting cholecystitis, appendicitis, salpingitis, etc., may be present and in that event one should not overlook instituting proper treatment for these conditions.

Gastro-intestinal symptoms are usually present. Nausea and vomiting not only often accompany the severe renal colic, but may also be associated with continuous dull lumbar pain and may be accompanied by



Fig. 2.—Standing pyelogram of the same patient, taken six months after author's method of nephropexy and renal sympathectomy. Note restoration of the kidney in its proper anatomic position, straightening of the ureter, and anatomic involution of the associated hydronephrosis. The patient has been relieved from attacks of pain.

gas, constipation, hyperacidity, etc. The gastric symptoms are particularly marked when the dislocated kidney becomes infected and is accompanied by perinephritis, which results in secondary adhesions to the perinephrium and to adjacent abdominal organs.

Pain is attributed to nerve origin, either directly to the sympathetic or reflected through the central nervous system. Nervous symptoms occur rather early. They are by no means unusual and accompany the gastro-intestinal symptoms. These symptoms vary from a slightly hyperactive nervous system to extreme nervousness. There may be insomnia and headache.

Unfortunately, *urologic symptoms* are not often present, and the lack of these fails to call attention to the kidney as being the possible source of the patient's ailment. Hematuria occurs when the kidney becomes strangulated, and microscopic hematuria is present when the kidney is partially or completely obstructed by reason of ptosis. When accompanying infection occurs there is increased frequency, dysuria, nycturia, and pyuria. The passage of a large amount of clear or cloudy urine may follow a severe attack of renal colic.

Diagnosis

In the obese patient, palpation of the kidney in the recumbent and standing positions, which is of such great value in the thin patient, cannot be satisfactorily employed, because, in such patients, and in those presenting extensive abdominal scars, one is often unable to palpate the kidney. Here percussion, although unsatisfactory, may be of some aid.

In some patients there is tenderness in the costovertebral angle or in the upper and lower abdomen. When co-existent infection is present, the overlying musculature of the lumbar region or of the abdomen may be spastic or rigid. Good plain x-ray pictures of the kidney are of great value in determining its size, shape, and position, and in excluding stones, tumors, or enlargement of other abdominal organs.

Pyelography should be employed in all cases. Intravenous pyelograms should be made in the horizontal and vertical positions. Although not so precise as retrograde pyelograms, they often indicate the descent of the kidney, pointing it out as the offending organ. Retrograde pyelograms are by far more satisfactory. They give one a more clear outline of the kidney pelvis, demonstrate the extent of the hydronephrosis, and show the relative shift of the kidney from the horizontal to the vertical positions.

In taking the standing film, it is necessary to withdraw the catheter to a point well down in the ureter, in order to demonstrate any kinking that might take place in this tube. Oftentimes the kink is found to be located from one to two centimeters below the ureteropelvic junction, and the ureter and pelvis are usually found to be dilated above this point of obstruction. Often kinking can be demonstrated only in the standing position. In some cases it is permanent, as demonstrable in the horizontal as well as the upright position, and is due to the sclerosing action of perinephritis.

The reproduction of pain previously experienced by the patient, by injection of the renal pelvis, is an aid in diagnosis. Un-

fortunately this sign, so much stressed in the past, is not constant and some cases of advanced ptosis experience very little, if any, pain when the pelvis is completely injected.

Treatment

Ever since the recognition of ptosis of the kidney as a distinct clinical entity, measures have been proposed and utilized for its mechanical support by means of abdominal belts or by surgical suspension. There is no doubt that the belt affords relief to a goodly number of thin individuals presenting renal ptosis, and I have successfully employed this means of support in this type of patient.

In the obese patient, however, the support afforded by the use of an abdominal belt is of no value, because the obese condition of the patient prevents its supporting action. It is likewise of no value to patients presenting third-degree ptosis, in whom the kidney is anchored in an unusually low position because of perinephritis, and in those presenting extensive abdominal scars.

In the obese patient, nephropexy, or surgical suspension of the kidneys, is the only treatment that will give lasting results. In a recent review of 400 patients on whom nephropexy was employed for the relief of symptoms produced by ptosis of the kidney, 38 were performed on obese patients, according to my perfected personal technic, which has overcome the uncertain elements of other operations formerly used, by means of sutures taken on the anterior and posterior portions of the renal capsule and anchoring them above the last rib. It provides fixation of the kidney at any height desired, entirely freeing it from the surrounding structures and assuring adequate exposure of the upper ureter, so that obstructing adhesive bands, aberrant vessels, etc., can be properly dealt with. In cases presenting pain, I also perform denervation of the kidney, or renal sympathectomy. This consists of severing the sympathetic nerve fibers which are usually found to run along the surface of the renal artery and its main branches.

I have employed this method of nephropexy on 38 obese patients suffering from ptosis of the kidney, with 97.4 percent of cures. Routine postoperative pyelographic study in 28 of these cases, and autopsy examination in another patient (killed three years later in an automobile accident), has demonstrated that the kidney was permanently fixed sufficiently high and in its true anatomic position. The ureter was free from kinks, and thus good drainage had been definitely established and permanent relief of symptoms obtained.

450 Sutter St.

Obesity and Biologic Types

By THEO. H. MADAY, M. D., Chicago, Ill.

THE SUBJECT of obesity is well worn, yet new thoughts are often at least somewhat welcome to some of us who see a number of these self-styled sufferers, in private practice, every year.

In this communication, I should like to present the *obese tendency*, in the otherwise normal individual, and show why he or she becomes obese or tends to become so.

Fundamentally, if we go back to our inorganic chemistry, and dissolve certain salts in their appropriate solvents, or even in water, we find that, upon evaporation of the solvent and recrystallization of the salts, the crystals will always resume a definite crystalline shape, no matter how often we repeat the process. They follow an irrevocable law of nature. If we combine other chemicals with them, these chemical hybrids, if once stable, will assume a different crystalline shape, but this shape will always persist for the new compound formed, no matter how often it is recrystallized.

In biology we recognize that animals and plants behave in a corresponding manner. Thoroughbred or hybrid will always present the same approximate end result upon propagation. They follow the tenets of the mendelian laws.

Though it is obvious, most of us, even though we know better, fail to apply this knowledge to human beings. We know that, no matter how often we have inbreeding, a certain number of individuals, in any family, will present a definite temperament, and of these temperaments or characteristics, three pure or decidedly definite types may be recognized, if we will but look. Modifications of these, with one or another type or factor outstanding or predominating, will always be evident.

The pure or basic types, of which there are all sorts of combinations and variations, are the *mental*, *motive*, and *vital*.

Mental Type

The person of the mental temperament is the normal individual with a large cranium and high forehead as the outstanding characteristics, and with pinched or small-appearing features, culminating in a thin, pointed chin (see Fig. 1, left).

The further appearance of the individual will correspond: There is a small bony skeleton; small, thin musculature; and seldom if at all does such an individual appear well nourished. The stature is usually short, and these people seem to be "all head." They have a large cerebral

development, as a rule, and always are highly educated and cultured, because it is their natural tendency, and are always rather fine-grained and delicate. These are the thinkers of a nation, and often its doers also. They minimize their food requirements, because their thoughts come so rapidly that they pay scant heed to their animal cravings, even though they may be



Fig. 1.—Basic biologic types.

authorities on food. Such individuals rarely will be fat. They are often referred to as the "absent-minded professors," which many of them are.

Doctor Trudeau, who established a great institution for the treatment of tuberculosis at Saranac Lake, is an outstanding example of this type or temperament.

Motive Type

Second, we have the motor, or motive, or "doer" type, characterized by rather coarse (or coarser) and often weather-beaten features; coarse, straight (as a rule) hair; a medium-sized brain case; a prominent and long nose; long ears; and frequently a strong, square chin. The head may be large but, if we look closely, it is mostly in the features and a larger development in the motor areas of the brain, and a lesser cerebral or frontbrain development (see Fig. 1, middle).

The musculature is well developed, hard, and knotty, on a large and coarse skeletal structure, terminating in long arms and legs. These people are, because of the long arms and legs and powerful muscular development, the natural hunters, men of action, and the pioneer adventurers of the nation, as well as its best soldiers. They are large eaters, but mostly of meat. They consume large amounts, but they need all the calories for the constant outdoor activities they love and the low temperatures they can endure; and therefore they seldom become obese, because they cannot endure

too much relaxation, with its resultant (to them) stagnation.

Best examples of this type are Daniel Boone, Andrew Jackson, our polar explorers of bygone days, our aviators ("Lone Eagles"), and a recent example is General John J. Pershing.

Vital Type

Third, we have the so-called vital or life-loving type, which as the name implies, loves all the good things he can get out of physical living. Such are characterized by a relatively small brain case; a fairly large or a small snub nose; small, round ears, often standing away from or unusually close to the head; and a large, well-rounded chin—often two or three of them.

The head, though it may appear large, if we look closely shows mostly a back-head development, surmounted usually by a small, round, bald pate. The feelings of such persons are strongly amative and sexual.

The musculature is of the soft-tissue type, in contrast with the motor, or hard-tissue development, and is soft, flabby, and fat-impregnated, on a medium-sized, poorly calcified, and mostly phosphorized skeletal framework (see Fig. 1, right). The whole individual tends to curvature or roundity.

The most characteristic feature of the face is the distance between the tip of the small nose and the first chin, which is greater than the distance from the root of the nose to the top of forehead. In contradistinction, the motive individual has usually a long, eagle-beaked nose, and the distance from nose to chin is about equal to the distance from the root of the nose to the top of the forehead. The nose here is the most prominent feature.

The vital individual lives a great deal below his nose. He loves food, and consequently uses more than he needs, and stores it up. In other words, it is his natural behavior to become obese. He rarely craves action or even physical exertion of any kind, unless forced to it by necessity. He is always good natured ("too fat to fight and too fat to run") and uses and develops his higher cerebral centers chiefly in order to acquire the food he loves, the luxuries he craves, and to satisfy his selfish desires with the least amount of physical exertion.

These people are cunning and shrewd, professional back-slappers, everybody's friends, and consequently our most astute, if not notorious, politicians. Examples are really not necessary, because they are common sights daily, especially at theatres and circuses.

Mixed Types

After the description of these basic, extreme, or pure types, we must necessarily recognize that these are not so common as

we would like to believe, but the common ones are the *modifications* of these, following true mendelian characteristics.

Thus we have the *mental-motor* types, with a good representation of the vital temperament. We encounter them daily in the business world, as executives and salesmen. They are tall, well developed physically, good natured or having a tendency to it, and, if they possess a good deal of vital characteristics, become obese in later years, after success and a slowing up of their activities.

The most common mixed type is the *mental-vital*, usually snub-nosed; of medium build or short; good natured; loving luxuries; and they always have a tendency to stoutness. These are our best speakers, entertainers, politicians—well-met, shrewd business people—because they are not greatly in love with physical exertion, but recognize it as a necessity to earn a living.

Other mixtures can be seen, with their prominent characteristics adding to the individual's temperaments or personalities.

As physicians, we have been taught to be good observers, but there has been a tendency, among most of us, to narrow our observation to *disease* and forget the *individual*—to panel each individual, as he or she comes to us, as representing this or that disease—and have failed most often by being blind to what is as outstanding as our office building, which, when we first see it before moving in, appears as a tall, stately building, a short squatty one, or a modification of these features. Why not apply this observation to the people who come to us for help? If we do, we will know and see why obese individuals become obese, before we make a detailed physical examination.

When we see the vital-mental woman, we naturally assume she loves to eat; because of this, she is a good cook, yet she envies her more slender sisters, because of vanity, and because she presents other symptoms or circulatory or respiratory embarrassment. She wishes to be thin, but notice that it is only a *wish*. She never means it; her make-up is against it.

These individuals must be dealt with in another manner from what most of us have been doing, and we must understand that our reduction efforts will not be permanent. Such women (and men, too) will return to their fat after achieving slight relief from their original complaint.

These points will have to be worked out by the practitioner, in the otherwise-normal individual, but if physical examination proves thyroid, pituitary, or ovarian dysfunction, the physician will be greatly helped by knowing these facts.

Because of the temperament present, restrictions of diet will not suffice alone;

psychotherapy is necessary to a large extent, such as pointing out a blood pressure rise, digestive organ degeneration, and other consequences of obesity. The patient literally has to be *alarmed* about her condition in order to secure her cooperation.

Circulation, and subsequent oxidation of fats, can be stimulated by calisthenics;

explanation of its purpose can be made very attractive; and, together with mental hygiene, we can thus go a long way to help the obese and the near-obese, together with other agencies, as indicated and proved by our past medical experience.

3000 No. Cicero Ave.

Notes from the American College of Physicians

Reported by GEORGE B. LAKE, M.D., Waukegan, Ill.

THE TWENTY-SECOND annual session of the American College of Physicians was held at the Waldorf-Astoria Hotel, New York City, in April, 1938, and, to the best of my knowledge, the registration was the largest so far recorded (2,035 physicians).

The physical surroundings were palatial, but to my mind, a hotel, however gorgeous, never offers sufficient and satisfactory room for a proper exhibit. The things that were shown were, as always, interesting and instructive to those who were there to see them and hear the stories of the exhibitors, but so far as I could observe, nothing was shown which had not been shown before at national meetings, so I shall devote no time to discussing the exhibits, but shall proceed at once to abstracts of a few of the more practical clinical papers read.*

THE CHALLENGE OF APPENDICITIS

By Reginald Fitz, M.D., F.A.C.P., Boston, Mass., Wade Prof. of Med., Boston Univ. School of Med.

Fifty-two years ago this week (April 7, 1938), the Association of American Physicians was formed, and at that session a paper was read on "Typhlitis and Perityphlitis." We now know what these conditions really were, though we call them by a different name.

On June 18, 1886, a paper on "Perforating Inflammation of the Vermiform Appendix," by Reginald Fitz, M.D., was published—and "Appendicitis" was born!

Today, the surgical treatment, as such, of appendicitis is satisfactory, but the death rate has been steadily rising. Let us see what Medicine can do about it.

This disease occurs chiefly in otherwise healthy young men (68 percent). In Massachusetts, 25,000 appendectomies are performed each year, and 2 percent of the

patients die, so that the condition becomes an important public health problem. Most of the deaths are in patients who have abscess or perforation, and in those who have taken laxatives.

At the start, practically all cases call for medical treatment, the first principle of which is rest—keep the bowels quiet! If an operation is to be performed, it should be done early (within from 12 to 24 hours of the first symptoms), or else the surgeon should wait until the abscess has localized.

We ought to teach appendicitis as a medical disease, to be diagnosed, and frequently managed, by the general practitioner. Local medical societies ought to keep talking about appendicitis, so as to educate their members not the diagnose "bellyache" over the telephone, and the public not to take laxatives in cases of bellyache. An astonishing number of reasonably intelligent people make a routine practice of "cleaning out the system" with the popular laxatives which are so engagingly advertised.

In spite of the facts that appendicitis is easy to diagnose, and that the treatment is well recognized by the profession, and is effective, the situation in regard to it is bad, and the entire American medical profession should take concerted action to clean it up.

CEVITAMIC ACID (VITAMIN C) DEFICIENCY

By Irving S. Wright, M.D., F.A.C.P., New York City, Asst. Prof. of Clin. Med., Columbia Univ.

Vitamin C deficiency is common. Certain types of diets contain inadequate quantities of it, and fever uses it up. Even scurvy is common, in all sorts of practice, either as the primary condition or as a complication. Doctors and nurses who think the disease is so rare in their practice that they do not need to watch for it, had better refresh their minds on the signs and symptoms, and then be on the lookout. By no means all

*All of the papers, lectures, and discussions presented at this session will be published in full, during the year in *Annals of Internal Medicine*.

cases occur in families too poor to afford an adequate diet. A finicky appetite, popular superstitions, and eating fads produce scurvy, even among the wealthy.

Most, if not all, of the symptoms of scurvy are due to rupture of blood vessels somewhere in the body, occurring because of undue fragility of the capillaries, such as we find in thrombocytopenic purpura hemorrhagica and hemophilia, though these latter diseases do not respond to treatment with vitamin C, as do scurvy, diphtheria, pneumonia (where large doses are required), and possibly poliomyelitis.

The test for capillary fragility (which sometimes appears preclinically and is not always associated with scurvy) is so simple that it can be made by any physician who has a blood pressure apparatus and good eyes.

The test: Outline two circles, 2 cm. in diameter, on the flexor surface of the forearm, 4 cm. below the elbow crease; apply the blood pressure cuff and adjust the pressure half way between the systolic and diastolic; leave it in place, at that pressure, for 15 minutes; count the petechiae in the circles. If there are more than 20, the capillaries are pathologically fragile.

The standard dietary source of vitamin C is the citrus fruits. If there is some reason why these cannot be used (as in certain gastro-intestinal disorders), and in all cases where this vitamin has been proved to be definitely deficient, give cevitamic acid, by mouth or intramuscularly, or even intravenously in an emergency, in sufficient doses to bring the blood concentration up to normal and keep it there. The daily maintenance dose is usually from 30 to 50 mg., but may be as high as 1000 mg. There is no danger in giving such large doses, because the drug is non-toxic and overdoses are promptly excreted.

SKIN TESTS IN ALLERGY

By George L. Waldbott, M.D., F.A.C.P.,
Detroit, Mich.

If an allergic patient shows many positive skin tests, how are we to determine which are clinically important and which are not? Not all patients who are actually sensitive give positive reactions, especially in the early stages and in old cases of asthma and other allergic manifestations. If chronic infection is present with the allergy, skin tests fail. Allergic conditions in the internal organs may not cause skin reactions. When the attacks are repeated for years, the skin often fails to react.

Sensitizations are rarely single. The patient may be sensitive to both foods and to pollens, but may have symptoms only when both are active. If symptoms appear chiefly when the patient is in bed, they are probab-

ly due to feathers, hair, or some other part of the equipment of the bedroom.

In infancy and early childhood, food allergies are most common and important; later, the epidermals and pollens are more so.

Pollens are, of course, present day and night for several weeks, and then not at all for the rest of the year. This may give a clue to clinically important skin reactions. Remember that inhalation antigens may produce skin symptoms (eczema); and food allergens may cause respiratory symptoms.

In attempting to desensitize a patient with specific antigens, give enough to produce a large wheal, but not enough to go above the patient's threshold of sensitivity, and cause general symptoms or an exacerbation of the local ones. The physician must proceed with the treatment intelligently and individually, on this basis.

EMERGENCY TREATMENT OF DANGEROUS HYPERTENSION

By Albert S. Hyman, M.D., F.A.C.P.,
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for Study and Prev. of Heart Dis.

When a patient has a systolic blood pressure of 250 mm. of mercury or more, and a diastolic pressure of 150 or more, he is in the "superhypertensive" group, where most deaths occur.

Such patients frequently complain of severe and constant occipital headache, with a feeling of "heaviness," not relieved by ordinary drugs. There may be vertigo, but rarely with vomiting. In cases where the pressure has been high for a long time, there may be anemia, with the hemoglobin down to 40 percent and the red blood cells to 2,000,000. Complete or partial anesthesia of the cornea, on one or both sides, is an important warning of a cerebral catastrophe. Remember that venesection may cause a temporary rise of the blood pressure, which may be dangerous in such cases.

Autohemotherapy seems to be helpful in some cases. Spinal anesthesia lowers the blood pressure, and it frequently stays down for weeks; but if the postanesthetic systolic pressure falls below the preanesthetic diastolic, collapse and death are prone to occur. Placing the patient in an oxygen tent sometimes helps; and so does the rectal administration of a saturated solution of dextrose or a supersaturated solution of magnesium sulphate. The latter is better.

Perhaps the most reliable method, when the patient is in grave danger from hypertension and phlebotomy has not been performed recently, is to perform a spinal tap, removing enough spinal fluid to reduce the pressure to a reasonable level (removal of from 10 to 15 cc. of fluid will generally lower the blood pressure from 20 to 50 mm.), and

then give *epidural anesthesia* with 1-per-cent Novocain solution, using from 30 to 40 cc., and keep the patient prone for 8 hours thereafter. Remember, however, that this is treatment for an acute *emergency*, and not for hypertension in general.

PSYCHOTHERAPY, INCLUDING HYPNOSIS

By James L. McCartney, S.B., M.D., F.A.C.P., Catskill, N.Y. Psychiatrist, N. Y. State Vocational Institution

All active clinicians use psychotherapy every day, consciously or unconsciously, even if in no more clearcut and predetermined form than the giving of placebos, where the benefit, which frequently follows, is due to the patient's *faith*, rather than to the supposed drug.

Patients want something done for them. Psychic and environmental factors which cannot be changed may render a cure impossible, but the intelligent and sympathetic physician can give even such patients much valuable help. Many doctors literally drive patients to the cultists by their ignorance and stupidity in telling them that "there is nothing the matter with them," merely because no *objective signs* can be readily demonstrated. Functional symptoms are just as "real" as organic ones, and patients suffering with them are *sick*; they are not malingerers.

The patient and his complaint must be taken *seriously*; a complete medical and social history must be obtained; and a *thorough* physical examination made. Even though no *objective signs* of disease are found, the patient must be assured that his trouble is *real*. Remember that a diarrhea caused by anxiety is just as "real" as one which follows a dose of magnesium sulphate.

The physician must always maintain his professional *dignity*, and not encourage or permit the development of emotional relationships, especially with women patients, but hold a friendly, helpful, and sympathetic attitude, not setting himself up as a judge of the patient's morals, nor preaching sermons at him (or her), nor bewildering him with psychoanalytic jargon.

On the other hand, we must not *over-emphasize* any somatic condition that may be found, or we may generate a serious "complex," by which the patient will attempt to justify his neurotic behavior.

Psychotherapy begins the moment a patient enters a physician's office, whether the doctor intends or wants it to be so or not. No personality problem was ever solved (or "cured") by physical or mechanical methods, so the less medication and the more direct and intelligently directed psy-

chotherapy we employ in such cases, the better. Opiates and hypnotics are definitely "out." Moreover, the patient cannot get away from *himself* by taking a trip.

Environmental factors cannot all or always be changed by the patient or the physician or both, but he can be taught to *adjust himself* to the unchangeable factors, with adequate professional assistance. We can help him to *reintegrate* his personality, by the use of persuasion and suggestion.

Psychoanalysis may be a help in some cases, but it is by no means the only valuable method of psychotherapy. Not all patients can be psychoanalyzed, nor can they all afford such treatment, for it requires at least a year, with daily, one-hour or longer sessions for months. If no definite progress is made with psychoanalysis in six months, *stop it!* Moreover, there is no good in repeated analyses.

Suggestion is the oldest method of psychotherapy, working in the subconscious, over which we have no direct control. Worry may affect the motor, as well as the chemical and secretory processes. Many unpleasant suggestions come from *within the patient* (as in cases of hypochondria), and can be cleared up by the firm and confident assurance of the physician, or made worse by the fear-inspiring suggestions of the charlatan. Dysmenorrhea is frequently suggested as a family trait. People are just as amenable to helpful suggestions as they are to harmful ones, and *happiness* can actually clear up *physical symptoms*.

Suggestion may be given when the patient is awake or asleep, in which latter case it is called *hypnotism*. Though this method of treatment, like many others of unquestioned value, has been used by charlatans, it is perfectly ethical and, in certain cases, the best one available. The hypnotized patient accepts helpful suggestions *without question*.

Any *properly qualified* physician can use hypnotism, and most people can be hypnotic subjects. The more intelligent and self-controlled they are, the better. The physician must be *sure* of his ability to hypnotize, and must arouse the enthusiasm and confidence of his patient. If a patient is to be hypnotized, his consent to the procedure should be obtained *in writing*. Never hypnotize a woman patient except in the presence of a relative or close friend, or at least of a woman nurse or assistant.

The technic of hypnotism should be varied to fit the patient. Do not make "passes" nor look too closely at the patient eye to eye. Drug hypnotics may be used to help the process the *first time*, but not at subsequent sessions. If told to do so, the patient can remember everything that happens

during hypnosis, otherwise not. Failure of hypnosis the first time does not prevent success later.

AFFECTIVE DISORDERS

By Thomas P. Sprunt, A.B., M.D., F.A.C.P.,
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of Md. School of Med.

Disorders of mood and emotions, frequently accompanied by physical symptoms, are common in medical practice, and, especially the depressions, are handled unintelligently by most physicians. In fact, they are frequently *made worse* by the blunt and ill-considered demand that the patient "snap out of it."

Many of these patients will *volunteer* only their *physical* symptoms, and mood changes must be *sought for*. The neuroses are *affective* and may cause *organic changes*, but the physical symptoms are truly *secondary*, so that it is more accurate, for instance, to speak of a "neurosis with cardiac symptoms" than of a "cardiac neurosis."

Psychosomatic phenomena are a reaction of the *whole organism* in action, and the component factors cannot be separated. The psychic factors are of great importance in all rheumatic conditions, sciatica, myositis, fibrositis, and "muscular rheumatism," and 90 percent of these cases can be cured or improved by psychotherapy.

The endocrines translate the tempo of the autonomic nervous system into the tempo of metabolism. When hyperthyroidism is treated by iodine or surgery, the psychosomatic balance is disturbed. The same situation often occurs in cases of allergy, and the psychic factors must be considered and sought. These patients need and respond to psychotherapy; but it must be remembered that, while a neurosis can be relieved in this way, the skin reactions which may have developed will not respond.

The general clinician should study *all* patients who come to him, to determine exactly what symptoms have a primary physical basis, and how much of the complaint is wholly or partially of psychic origin.

SPRUE

By Ramón M. Suárez, M.D., F.A.C.P., San Juan, Porto Rico, Asso. Clin. Prof. of Trop. Med., Sch. of Trop. Med. of P.R.

The idea regarding the anemia which is present in cases of sprue, still generally held, is that it is secondary to disease of the alimentary canal, and not a disease of the blood-forming organs. (The latest—fourth, 1936—edition of "Gould's Medical Dictionary" defines sprue as "A chronic, catarrhal inflammation of the entire alimentary tract, especially prevalent in Malaya."—Ed.).

The disease almost always occurs in whites or mestizos (half-breeds), generally under forty years of age, and is never accompanied by osteoporosis, osteomalacia, nor tetany, such as occur in pernicious anemia. There is probably an hereditary factor in sprue, but it is definitely a *deficiency* disease (vitamin B₂ complex). Tropical and non-tropical sprue are identical.

The Porto Rican diet is low in vitamin A, calcium, and phosphorus; but the anemia of sprue is quite different from that of hookworm infestation, so there must be some other factor besides diet.

The gastric hydrochloric acid is low or absent and the blood sugar is low, but the latter condition improves when dextrose is given intravenously. The fat and nitrogen in the feces are increased, and the basal metabolic rate is generally above normal. The color index of the blood is generally normal or slightly above (hyperchromia); the red cells average about 2,000,000 per cu. mm.; the macrocytes are increased and megaloblasts are frequent (2 to 23 percent); the polymorphonuclears run about 25 percent. The gastro-intestinal symptoms often persist after the blood is practically normal.

The *treatment* consists in giving an adequate diet—proteins, carbohydrates, and fats—with *large* doses (larger than those used in pernicious anemia) of *concentrated liver extract*, given intramuscularly. *Ventriculin* and *autolysed yeast* do not work, as they do in pernicious anemia.

It is the considered opinion of the workers at the School of Tropical Medicine, after studying 150 cases, that *sprue is a disease of the blood-forming organs*.

OXYGEN THERAPY

By Alex. M. Burgess, M.D., F.A.C.P., Providence, R. I., Asst. Prof. of Biology, Brown University

Anoxemia (oxygen desaturation of the blood) may be due to a diminished supply of this gas in the inspired air; obstruction of the air passages; defects of the lung alveoli; or massive collapse of the lungs. The normal degree of oxygen saturation of the blood is 95 percent. In slight cyanosis, this is reduced to 85 percent; in deep cyanosis, to 75 percent.

Oxygen therapy is of value in *pneumonia*; *heart disease*; *pulmonary infarction*; *bronchial asthma* (with helium); *surgical shock*; and for *premature infants*.

In heart disease, especially if pulmonary edema is present, oxygen will relieve dyspnea, and thus lessen the work of the heart. In coronary thrombosis it will save the glycogen of the heart muscle.

The methods of administering oxygen

are: The subcutaneous and percutaneous routes (which we have found unsatisfactory); by masks; inhalers; intranasal catheter; the box; the tent; and the special oxygen room. The catheter and open box methods have been found most generally useful.

A box (generally made of fabric), with the top wide open and equipped with an ice container with a cover over it, gives excellent results and can be purchased at a reasonable price. In such a box, when operating properly, a flow of 2.4 liters per minute will give an oxygen concentration of 40 percent at the level of the patient's face; but we must not assume that this is true. We must test the amount of oxygen the patient is actually receiving. The apparatus and method for this test are simple.

The gas which distends the bowels in cases of pneumonia and other disease conditions is almost pure nitrogen. If we keep such a patient in an atmosphere of from 95 to 98 percent oxygen for several hours, the nitrogen will be absorbed by the blood and removed. In the same way, oxygen therapy is frequently helpful following encephalography and in subcutaneous emphysema.

GASTRO-INTESTINAL EMERGENCIES

By George B. Eusterman, M.D., F.A.C.P.,
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Minn. (Mayo Found.)

The physician sees the gastro-intestinal emergency cases first, and must be prepared to diagnose the condition and do something intelligent for the patient.

The common symptoms are well known—pain, distention, tenderness, hemorrhage, diarrhea, vomiting, etc. These may be due

to a subacute perforation of a peptic ulcer, acute gastritis (the symptoms resemble those of perforation), acute pancreatitis, etc.

"Morphine puts two people to sleep—the patient and the physician." However, morphine, or Dilaudid, given intravenously, may be necessary to permit proper examination and study. We must warn the patient that the relief afforded him in this manner is temporary, so that he will not refuse operation, if it is decided that surgery is indicated.

Subacute perforation is present in 5 percent of these emergency cases, and is suggested by pain and tenderness localized at one point, and by the patient having trouble in turning over.

Hemorrhage accounts for from 9 to 15 percent of these cases, and is shown by the vomiting of blood or the presence of melena. These may be due to other causes, which are commoner in older patients. If the hemorrhage is repeated, operation is called for. It is good treatment to give morphine, transfusions, rest, and an ice bag to the abdomen.

Extra-abdominal conditions which may simulate gastro-intestinal emergencies are: Pneumonia, coronary disease, pelvic conditions, hypoglycemia, endocrine disorders, etc. The history (coronary disease is common in middle-aged men), electrocardiograms, and other studies (dextrose relieves hypoglycemia promptly) should clear up most cases without great difficulty.

The derangements of the body chemistry and metabolism, which occur so commonly during the treatment of these cases, must be handled according to the conditions in the individual case and the recognized principles of good medical practice.

DEMOCRATIZING BIRTH CONTROL

What this country needs today is a democratizing and standardizing of birth control practice, information, clinical and private-practice counsel, honestly and understandably extended to one and all, publicly.—
HUGO FOSTER, M.D.

DEMOCRACY

A democratic government operates on the assumption that the state exists for man, not man for the state, and on the further assumption that there is no contribution by the state to man half so significant as that which makes both the speed and the nature of man's social progress dependent upon the exercises of his own free mind.—STANLEY HIGH, in HARPER'S MAGAZINE, through READER'S DIGEST, November, 1937.

Treatment of Prostatic Enlargement by the Steinach Ligature Operation

By EDWIN W. HIRSCH, M.D., Chicago

SURGEONS are paying more and more attention to ways and means of managing, by conservative measures, the minor or moderately enlarged prostate gland. No longer is it considered good surgery to remove the entire gland in every case which presents signs of prostatic growth. Today we have at our disposal several methods for remedying the hypertrophied prostate. The tendency in prostatic surgery is toward less radicalism in the average case.

Formerly it was thought that prostatectomy was the only proper method for treating effectively the prostate which showed signs of abnormal growth. Many physicians of the old school believed that whenever an elderly man complained of urinary frequency, the cause, in all probability, was prostatic obstruction. If the gland felt somewhat enlarged and there was associated urine retention, it was recommended that the prostate be excised. Many men with a troublesome prostate did not look with favor on this drastic form of treatment.

In the past, the error was made of treating all cases practically alike. The patient with slight enlargement of the prostate was placed in the same category with those who had a large, hard prostate. Men whose residual urine was small in amount were not differentiated from others who had a large retention of urine.

Prostatic enlargement was regarded as pure tumor growth. On the basis of this theory it was considered advisable to remove the small gland which contained a tumor before it grew into a large-sized tumor mass. It was held that all small tumors would proliferate, so that the sooner a gland was removed the better it would be for the patient. This contention was wrong.

The first attempt made by surgeons to bring about reduction of the enlarged prostate by indirect measures consisted of castration. This operation was performed on the theory that the testicular secretion controlled prostatic growth. It was known that the prostate gland of a eunuch was much smaller than that found in the normal male of equal age. Scientists concluded that the eunuch's prostate gland did not increase in size with age because no sex-gland secretion was present which could stimulate prostatic growth. It was then argued that, if the testes were removed in a case of prostatic enlargement, the prostate gland would shrink because the irritating substance—

the testicular secretion—which caused the prostate to enlarge was no longer present.

Castration quickly proved to be a failure in the correction of prostatic enlargement. A few patients were improved, while most of them were made worse. Severe mental disorder followed in most instances, which was a far more serious affliction than the inconvenience and distress due to obstruction at the neck of the bladder.

A far simpler method for cutting off testicular secretion, without removing the sex glands, was soon devised. By merely ligating the vas deferens on both sides, and cutting it between the ligatures, the sperm could no longer enter the body. This operation was then tried on a great number of patients suffering with prostatism. Some cases seemed to be helped, while the majority of patients were not relieved as a result of vaso-ligation. Surgeons lost what little faith they had in this operation and resorted to prostatectomy as the reliable and certain method of cure.

Up to this time no one had done any scientific work on the relation of testicular secretion to prostatic enlargement. The first physician of modern times to attempt forestalling the changes which age entails was Brown-Séquard. He made an extract of animal sex glands and injected small quantities of this substance into himself. In 1889 he reported his experiment and stated that the injections of bull's testicles made him feel very much younger. Physiologists pursued this line of research and soon demonstrated that there were two vital substances in the male sex gland: (1) an external secretion—the sperm or male element; and (2) an internal secretion which passed from the testicle into the blood stream and was the vital substance which gave men their masculine force.

On the basis of this work, several investigators began experimentation on various animals. They found that they could alter the degree of sex-organ development by tying off the vas. Also, they showed that it was possible to increase or decrease the size of the animal's copulatory structures. By experimental means, it was demonstrated that the sexual characteristics of the animal could be modified. Among other changes, it was noted that the prostate gland could be made larger or smaller by artificially increasing or decreasing the sex gland secretion.

The idea of tying off the vas to correct

prostatic enlargement was largely advocated and popularized by Steinach. That is why this operation is called the Steinach operation. Recently Steinach has presented a method for shutting off the sperm which he claims is more efficient than vaso-ligation. This operation consists in tying off the fine excretory ducts which lead from the upper pole of the testis to the head of the epididymis. Fine silk is employed for ligation. The tunica propria of the testis is not stretched, so that there might be no interference with the absorption of internal secretion into the testicular vessels.

Considerable diversity of opinion exists concerning the merit of either the Steinach operation No. I, which is vaso-ligation, and Steinach No. II, which is ligation of the vasa efferentia. Many surgeons do not regard the Steinach method as being of any value, while a certain few surgeons maintain that the operation is of great help in the majority of cases. Niehans, a Swiss urologist, has employed the Steinach No. II method and claims to have cured a large number of patients with prostatic enlargement. He believes that, by stopping sperm formation, congestion of the prostate gland and seminal vesicles is prevented, because there will be no sexual secretions to irritate these structures.

Another factor responsible for the reduction of the enlarged prostate, according to Niehans, is that ligation of the vasa efferentia increases the production of male hormone. His theory is that the hypophysis, when adequately stimulated by the male hormone, produces Prolan A and Prolan B. In turn, Prolan A causes the production of more sex gland hormone, while Prolan B is essential for the production of prostatic and seminal vesicular secretion. Increased quantities of Prolan B are capable of stimulating prostatic enlargement. To counteract this hormone it is necessary to throw more male sex gland secretion into the circulation, since Prolan B is formed in liberal amount when Prolan A is deficient in amount. The Steinach II operation assures an excess of Prolan A, and hence an excess of Prolan B cannot form. Thus prostatic hypertrophy can not ensue.

The important thing about the Steinach operation is not whether the theory is correct in substance, but whether the operation is ever indicated; what are the types for which it is suited; what are the end results; and if good results are obtained, to what are they due?

My personal experience has led me to conclude that there are cases of prostatic enlargement when the Steinach is indicated. Definitely, it is not indicated when there is a large, hard prostate. It is to be recommended when there is evidence that the

prostate is raised upward by a stagnation of secretion within the seminal vesicles. There are many cases in which the prostate appears, on cystoscopic examination, to be grossly enlarged. Hypertrophy of the bladder muscle is also evident. In exceptional cases there may even be a complete retention of urine. Massage of the seminal vesicles causes the appearance of secretion at the meatus which, on microscopic examination, is found to contain a large number of sperms.

Management of this type of case consists in putting the bladder and prostate at rest by the use of an indwelling catheter for several days. Then the prostatic urethra is properly dilated and the vesicular secretion is pressed out. If liberal quantities of vesicular secretion are found in the bladder washings and the patient is able to void after emptying the vesicles, it is evident that the enlarged and inflamed vesicles are responsible for the bladder-neck irritation. The Steinach No. I operation is then performed.

Excellent results are obtained by this operation when the urinary difficulty, frequency, and nocturia are due primarily to enlarged seminal vesicles. Even though the prostate is enlarged and feels somewhat firm, it will reduce in size when the stagnation of the seminal vesicles is relieved. Many cases of this type are operated upon by either prostatectomy or resection. Since the urinary function returns to normal, it is concluded that the operation employed was the sole means of relieving the so-called obstruction.

One reason for the endless controversy relative to the best means of relieving one who is affected with prostatism is that most cases are assumed to have a small, medium, or large prostate because the patient's prostate gives, either by rectal or cystoscopic examination, evidence of being somewhat enlarged. The fact that few cases of false prostatism are reported is evidence that a large number of cases in which the vesicles are primarily at fault are overlooked.

I believe that the time is at hand when better diagnosis is necessary to determine whether or not a case presenting the typical prostatic symptoms and signs is really due to a true hypertrophy of the prostate or to enlargement of the seminal vesicles, kidney disease, sexual irritation, incompetent heart, or some other lesions. Experienced urologists know that many cases are subjected to major surgery when the urinary frequency, nocturia, and retention are due to some factor other than the prostate.

In my opinion, the indications for vaso-ligation are: (1) Prostatic enlargement, due to congestion or inflammation and enlargement of the seminal vesicles; and (2) com-

pression of the prostate, due to stagnation within the seminal vesicles caused by blockage of the ejaculatory ducts or dilatation of the vesicle walls, due to the production of an abnormally large quantity of vesicular secretion.

Summary

There is no single method for treating prostatic enlargement which will be uniformly successful.

Each case must be carefully studied from the medical as well as the urologic viewpoint.

One must ascertain by various tests whether the prostatic enlargement is secondary to seminal vesicle stagnation.

The indication for prostatectomy, resection, vasoligation, or conservative management depends on various factors, such as the degree of glandular enlargement, the possibility of draining the prostate of its retained secretions, the age of the patient, the amount of residual urine, blood chemistry studies, and the general condition of the patient.

185 No. Wabash Ave.

Narcolepsy (A Report of 62 Cases)

By R. L. GORRELL, M. D., D. N. B., Clarion, Iowa

A DISEASE that has but one prominent symptom, and that symptom almost pathognomonic, should not be missed too often. Narcolepsy can almost be diagnosed when a patient makes the simple statement: "I fall asleep at times, whether I want to or not, and yet my health is perfect." Over 300 physicians were consulted by the 62 narcoleptic patients whose histories are here summarized. Of this number, 15 made the proper diagnosis.

Narcolepsy has been briefly defined as a disease characterized by attacks of irresistible sleep. It should be added that these sleepy attacks are in no way related to hypothyroidism, and that the administration of thyroid extract is without effect. The majority of narcoleptics become very weak on excitement or laughter, this symptom being known as *cataplexy*.

The world literature on narcolepsy is cluttered up with every type of disease causing sleepiness, such as brain tumor, marked hypothyroidism, hysteria, pyknolepsy, et cetera. In a previous publication¹, this literature has been classified.

Although Gelineau, a German physician, first described narcolepsy in 1870, very few cases were reported until 1918, a fact which has led many neurologists to believe that narcolepsy is a symptom of brain damage due to encephalitis or to head trauma. Anyone taking the trouble to examine the histories of a large number of narcoleptics or talking with and examining a number of such patients, can easily disprove such a contention. Often there is no history or physical evidence of brain injury, the mentality of these patients is normal or above normal and, as a rule, when these patients are subjected to sella turcica roentgenograms, encephalograms, and ventriculo-

grams, no abnormality is found. Apparently the majority of cases are not preceded by a head injury or brain infection. Two cases in this series date their attacks from scarlet fever, one from a pituitary tumor operation, one from a shrapnel injury, and five from influenza.

In reading over reports from a number of narcoleptic patients, I was impressed by the fact that a number were spontaneously recovering and that several were gradually training themselves not to fall asleep. The relation between narcolepsy and cataplexy, and normal behavior is easily observed. Have we all not felt weak when something exciting, such as a traffic accident, has happened? Look around in church and observe how many temporary "narcoleptics" you can see. This belief that narcolepsy was a habit, has been reinforced by Ford's² statement (June, 1937): "I am convinced that we are not dealing with structural damage, rather with bad habit formation. The abnormality seems to lie in the facility with which such (sleep) reactions occur, rather than in their nature."

Treatment

The above conclusions are of basic importance in treating the disease, if disease it is. Benzedrine Sulfate tablets prevent the attacks in 95 percent of patients, but have no curative value whatever. One 10-mg. tablet is given on arising and a similar dose is administered at noon. Mild cases require only one-half tablet, as contrasted to the severe cases, who get no relief unless from 4 to 8 tablets are taken daily. One Californian (L.E.F.) takes up to 11 tablets daily. He has taken not less than

2.—Ford, F. R.: "Diseases of the Nervous System in Infancy, Childhood and Adolescence." Springfield.

1.—Gorrell, R. L.: "Narcolepsy. *Ill. M. T.*, Oct., 1937. Ill.: Charles C. Thomas. 1937. pp. 842-44.

80 mg. daily for two years, without any ill effects.

Narcoleptics can take very large doses of stimulants; e.g., up to 2 grains (125 mg.) of ephedrine sulphate, without the distressing symptoms that appear when such medication is given to normal individuals. At the present time, I am having a group of patients very gradually decrease the dose of Benzedrine and endeavor to keep awake a little more each week. Ephedrine sulphate, in capsules, in doses of $\frac{1}{2}$ gr. (24 mg.), is effective in 75 percent of cases, but patients quickly become tolerant and need increasing doses for relief.

Summary of Histories

The data from the cases studied showed: (1) *Sex*: 18 females, 31 males; (2) *age*: 4 were between 10 and 20 years, 21 were between 20 and 30, 11 between 30 and 40, and 7 between 40 and 50 years of age; (3) *weight*: 5 were much overweight (190 to 235 pounds); (4) *height*: 6 were over 6 feet tall, 4 were shorter than 5 feet, the remainder being of about average stature; (5) *duration*: 19 patients had suffered from 2 to 10 years, 7 patients from 10 to 20 years, and 22 could not give the exact date of onset.

Treatment: Benzedrine gave relief to 15 patients, none to 2; caffeine and strychnine gave no relief to 1 patient; ephedrine sulphate gave relief to 3 patients, not to 1; thyroid extract was given to 5, not one of whom was improved; one was given a ketogenic, fluid-restricted diet without benefit. Five (5) had no treatment of any kind and

were spontaneously improving, in varying degrees. Seventeen (17) received no therapy, for one reason or another.

Six (6) of the patients were examined personally; the remainder wrote in from 19 states, after reading a brief paragraph of mine in *Collier's Weekly*. They were sent complete questionnaires, so that full information could be obtained as to possible causes, associated symptoms (including cataplexy), previous medical examinations (which were also obtained from physicians), ability to sleep, presence of dreams or nightmares, and previous diagnoses and treatment.

One could write a cynical commentary on human nature after observing the response of these patients. Many of them wrote in that they were "desperate to get relief," "would do anything to be rid of the sleepy attacks," and the like. Yet many of them did not take the trouble to answer the questions, enclose sufficient postage, if any, answer follow-up cards, or consult their local physician, as advised.

The four patients who did consult their home-town physicians, were told not to take Benzedrine because (1) "It was a powerful stimulant" (true, but not for narcoleptics, just as epinephrin is well tolerated by asthmatics); (2) "The sleep attacks were caused by a stomach disturbance"; (3) "Benzedrine has dangerous after-effects."

Insulin will not cure diabetes and Benzedrine will not cure narcolepsy, but both will enable the patient to make his way in the world.

210 E. Central Ave.

Light on the Cardiac Problem

By F. LeBLANC, M.D., Chicago, Ill.

ONE is not only justified, but well nigh compelled to be keenly alert in diagnosing, prognosing, and managing the heart cases that present themselves today, because of the vital interest that the patient has in this so-called "cardiac problem." Whether we personally believe it or not, our patients are more "heart conscious" than ever before.

The leading popular magazines and the lay press have repeatedly presented vivid word pictures, to convey to the laity the fact that heart diseases cause one-third of all deaths today and that more people die of cardiovascular diseases than from cancer, tuberculosis, nephritis, and pneumonia combined.

Considering, as we are, diseases of the heart and blood vessels, we are led immediately into the most profound problems, both of life and of death: Of life, because

the beating of the human heart implies the mystery of the life process; of death, because the changes that go on in the arteries are intimately bound up with growing old.

To emphasize again how close and personal should be the appeal of this "cardiac tragedy" to us all, we need but repeat the statement from the *Journal of the American Medical Association*, issue of May 1, 1937, in which it was reported that, in a study made on 3,581 American physicians who died in 1936, it was found that, out of every thousand deaths, 624 were caused by cardiovascular disorders.

When careful thought is given to the subject, one marvels at the comparatively slow progress we have made in our diagnostic procedures in cardiovascular diseases. Ever since Harvey, in 1628, published his discovery of the circulation of the blood and

its dependence on the heart as its central organ, derangements of the circulation began to be recognized as signs of disease of the central organ.

For almost two hundred years thereafter it is worthy of note that not a single worthwhile development took place until Corvisart, about 1800, made practical use of Auenbrugger's discovery of percussion to determine the size of the heart. About that time Laennec invented the stethoscope for diagnosis of diseases of the chest and Bouillard extended its use to diagnosis of diseases of the heart.

Graphic Records

During the past one hundred years, various pulsographs and sphygmographs have been made for recording, on a smoked disc, the force and form of the pulse, but without notable success. These various devices were attached to a wristband and fastened by a buckle over the radial artery, where the amplitude is much less than it is if taken above the elbow, and these small tracings did not afford dependable information. An even more serious defect with these instruments was the impossibility of maintaining the blood pressure at a known point while making the tracing. The pressure must be kept constant in graphing, for a variation of even 5 or 10 mm. in the pressure at which a record is made entirely changes the character of the graph and limits its diagnostic value.

The only other noteworthy development was the electrocardiograph. As a result of Lippman's research in 1873, Einthoven, in 1903, adapted the string galvanometer for recording the electric impulses of the heart movement. The difficulties of interpretation with the electrocardiograph limit its use and value in clinical practice.

Ever since the discovery of the circulation, physiologists have directed their attention to the force of the heart beat, the pressure of the blood in the vessels, its velocity, and the phenomenon of the pulse wave. It is with these that we are especially concerned, for a correct recording of the blood pressure, the pulse pressure, the pulse rate, and the rhythm, force, and form of the heart beat, as obtained with the Cameron Heartometer (the instrument used in these observations), affords an opportunity for more accurate determinations of heart conditions.

The chief symptoms of heart disease, such as breathlessness, syncope, pain, dyspnea, and palpitation, are better understood, and diagnosis, prognosis, and treatment are now much more exact, due to the perfection of graphic methods, such as are obtained in this way.

We are, therefore, enabled, quickly and accurately, in our own offices or at the bed-

side of the patient, to classify the heart condition that presents itself for diagnosis, into functional lesions and organic lesions and thus, at the outset, be in a position to prognose and treat the case intelligently and correctly.

Therapy in functional cardiac conditions has tremendously advanced, and vitamin therapy alone has entirely changed the picture in the prognosis and treatment of these functional lesions.

Vitamins and the Heart

It has been definitely established by various workers, notably Weiss and Wilkins, the former an authority of note (*Annals of Int. Medicine*, July, 1937), that some arrhythmias and the bradycardias, alone or associated with partial or complete heart blocks, may be due to vitamin B deficiency, causing a faulty or absent impulse to the sino-auricular or the auriculo-ventricular nodes, with a resultant auricular flutter, auricular fibrillation, or heart block, with associated bradycardia. These conditions can occur alone or in association with each other. Furthermore, Weiss and Wilkins, in the above-mentioned paper, report 125 cases formerly classed as "myocarditis," which are now believed by them to be true "beriberi" hearts, due to vitamin B deficiency. Harris, in his book on vitamins, states that bradycardia or slow heart rate is a specific condition of vitamin B deficiency. All these conditions are accurately and definitely shown on graphs made by the Heartometer, and we know that, by giving these patients the vitamin B complex for a short time, we correct the condition and produce a normal heart graph (see Figs. 1, 2, and 3). There is ample evidence to show that vitamin B is the one vitamin that is so spectacular and rapid in action.

We can say with almost equal certainty that vitamin C will act with equal effectiveness in cases of simple paroxysmal tachycardia, or in tachycardia associated with auricular fibrillations.

Thus the most common disturbances of the heart beat, such as sinus arrhythmia, partial or complete heart block, extra systoles, simple paroxysmal tachycardia, auricular flutter, auricular fibrillations, alternations of the pulse, etc., can be quickly identified. These cover the most common functional conditions that one meets that can be quickly diagnosed, prognosed, and treated and, in addition, the valvular heart lesions, the myocardial degenerations, hypertrophy, dilatation, toxemias, sclerotic changes, and hypertensions are likewise definitely portrayed.

It goes without saying that charts taken at intervals definitely indicate whether a heart irregularity is transitory, such as

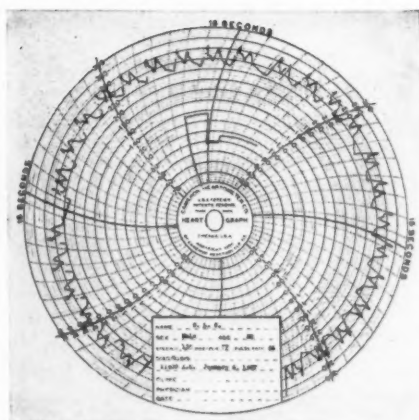


Fig. 1:—Heartometer graph of a patient with auricular fibrillation, before treatment.

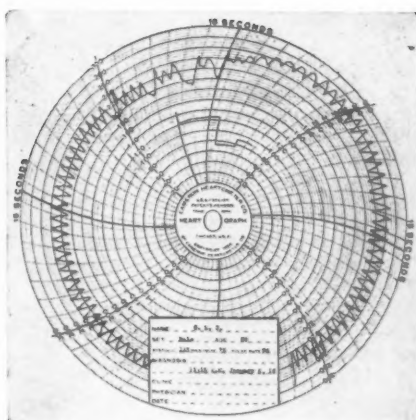


Fig. 2:—Graph made 24 hours after giving vitamin B.

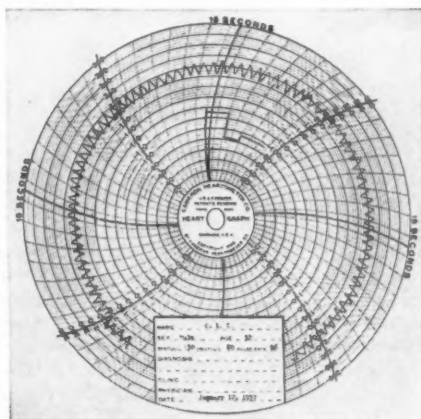


Fig. 3:—Graph made after 6 days of treatment.

might be due to toxic infection, fatigue or emotional disturbance, or if it is chronic.

Furthermore, one of the outstanding features of such graphic diagnosis is that the graph gives evidence of the effectiveness of treatment. Patients can see and understand the graphs and, when these are explained to them, they are more easily influenced and controlled.

This instrument definitely fulfills an important use in oculo-cardiac reflex studies, as first outlined by Aschner, to determine disturbances in the autonomic nervous system. This reflex, in patients who are

vagotonic or sympathetictonic, is made quite objective by the Heartometer, by either a slowing or a speeding up of the pulse rate when an even ocular pressure is applied.

Other conditions in which the use of the graphs seemed particularly indicated are in the peripheral vascular disorders such as Buerger's disease, endarteritis obliterans, proliferative endarteritis, etc., where the lessened volume of the blood stream is easily discerned.

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Physical and Office Therapy and Radiology



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Ralph L. Gorrell, B.S.M., M.D., D.N.B.

A New Thought on Sinusitis

THE CUSTOMARY METHODS OF TREATING chronic sinusitis are admitted, by honest rhinologists, to be unsatisfactory. The conservative customary methods are, as a rule, only palliative and fleeting, and surgical drainage is equally disappointing.

We may point out that, when our ancestors were quadrupeds, the positions of the sinus openings were at the lowest point of the sinus, like the drain from a bath tub. The erect attitude of modern man shifts these openings to a different level, interfering with drainage by gravity.

The drainage of the antrum of Highmore by making a large opening into the nose, is both faulty, from the view of gravity drainage, and barbarous, as inflicting an injury totally out of proportion to the results. Drainage of the antrum of Highmore, if warranted, should be through the maxillary bone into the mouth.

We believe that surgery has no place in sinusitis. Even polyps may be shrunk by anodal electrolysis, combined with metallic ions. The use of 4-meter radio-frequency, in non-thermal intensity, is penetrative, sedative, and antiseptic.

Dr. Otto Meyer¹, reviewing the unsatis-

factory status of sinusitis therapy and being ignorant of radio therapy, has hit upon a very interesting clinical discovery. He says: "In examining a large number of patients with chronic sinusitis, I found that the majority of them also suffered from a chronic latent inflammation of one or both jugular veins. Further investigation disclosed the significant fact that, in most cases in which only the jugular vein was affected, the sinus was situated above the jugular vein."

Meyer considers this a new discovery. He concludes that this comes from a passive congestion within the skull, or that jugular phlebitis is the forerunner and indispensable cause of sinusitis. He therefore removes this cause, relieves the jugular phlebitis by the application of leeches, and has met with decided success in curing sinusitis in from one to three weeks, without recurrences.

Taking this tip from Dr. Meyer, we have obtained similar results by using a non-thermal, 4-meter wave, applied by one condenser on the vertex and the other under the angle of the jaw.

Surgical intervention in sinusitis should not be considered until radiotherapy has had an honest trial.

F. T. W.

1.—Meyer, Otto: *Etiological Treatment of Chronic Sinusitis*. *Med. Rec.*, Sept. 1, 1937.

★ Notes and Abstracts ★

Practical Physical Therapy*

THE APPLICATION of physical therapy in cardiovascular disease is for the purpose of alleviating pain, relieving vascular spasms, correcting functional disorders, and influencing the state of the coronary vessels. Diathermy is particularly helpful in *chronic angina pectoris*, because it serves as a means of relieving spasm of the coronary blood vessels, inducing local hyperemia, and improves muscle tone.

Diathermy is also employed in the treatment of chronic coronary thrombosis. Marked clinical improvement with relief of symptoms is obtained. In both conditions treatment should comprise a constant current of about 800 to 1200 milliamperes for from 15 minutes to one hour, and be given regularly, two or three times a week, for many months.

The technic is the usual one—medium-sized electrodes, applied precordially and posteriorly. Ultra-short-wave treatments have also been of value.

Hypertension: I have found physical therapy far more helpful in hypertension, due at least partly to vasomotor conditions, than in those due entirely to arteriosclerosis. Inquiry should be made into living conditions, mental stress, eating and sleeping habits.

Respiratory Affections: Physical therapy is applicable in numerous disorders of the respiratory tract, from the common cold, for which the quartz lamp is generally used, to the most extensive pathologic conditions of the lungs demanding particular agencies. In *bronchitis*, either acute or chronic, considerable relief may be obtained from pain, cough, and pectoral oppression, by the use of radiant heat, diathermy, and ultra-short-wave therapy; in some cases the addition of ultraviolet irradiation is advisable. In *pleuritic inflammation*, where diathermy is more frequently used, it is applicable in every type and stage; in *bronchopneumonia*, *lobar pneumonia*, and delayed resolution. Here it induces hyperemia, softens infiltration, accentuates biologic enzyme activity, and aids local nutrition. Great relief from pain, dyspnea, and cyanosis is obtained because of its sedative effect and the improvement in pulmonary circulation—the pulse slackens, sweating occurs, respiration deepens, resolution and soft râles appear, and the attack is shortened.

In some of our institutions, diathermy is

used as routine treatment; the antero-posterior technic, or the active electrode over the localized spot is employed, giving the patient from 30 minutes to one hour of treatment several times daily; it is applied in the early stages, with considerable doses of 1,000 to 2,000 milliamperes.

JACOB GUTMAN, M.D.

Brooklyn, N. Y.

Prevention of Radiation Sickness

RADIATION SICKNESS prevents the carrying out of sufficient dosage treatment over the proper length of time. Nembutal administration has been of some value, but new research indicates that barbiturates cause an increased sensitivity of the skin to roentgen rays. A high-carbohydrate diet should be given for several days before taking radiation therapy. By the use of an inhaler containing charcoal (to filter out the ionized air) and grounded, most of the patients were protected from sickness.—AMEDEE GRANGER, M.D., in *New Orl. M. & S. J.*, Sept., 1937.

[The general practitioner would do well to see that the patients he refers for radiation therapy of the uterus, cervix, breast, or other organs, have consumed a high-carbohydrate diet for three days previous to the treatment, and have been on full doses of bromides.—Ed.]

Short-Wave Diathermy in Otolaryngology*

FOR TREATMENT of conditions about the head and neck, short-wave frequencies ranging from thirty to six meters have proved satisfactory, though to insure penetration in depth, the six-meter apparatus is preferable. Any apparatus of adequate wattage utilized in general medicine is suitable.

For *Sinusitis*: (1) Frontal sinusitis is treated by placing the electrode over the frontal area and a larger dispersive electrode on the neck or chest, or by placing air-spaced electrodes in the same areas; (2) maxillary sinusitis is treated by placing one electrode over the sinus, or over both, if bilateral sinusitis is present; (3) sphenoidal and ethmoidal sinusitis should be treated

*N. Y. S. J. M., March 15, 1938.

*E. E. N. T. Monthly, Jan., 1938.

by placing the electrode more or less on a line through the antrum.

In *acute tonsillitis*, short-wave diathermy promptly alleviates pain and discomfort. Electrodes are placed over the tonsillar areas, or several turns of an inductance coil are placed around the neck. The same technic is used in pharyngitis and cervical adenitis. Treatment with the inductance coil is used for glandular swellings, cellulitis, and other infections of the neck. Short-wave treatment is effective in furuncles of the external auditory meatus, otalgia, acute eustachian catarrh, and acute myringitis. Facial neuralgia (Bell's palsy) should be treated by daily applications of short-wave energy, followed by galvanism and massage.

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Chicago, Ill.

Prevention of Needle Pain

THE APPLICATION, for a minute or two, of a cube of ice, wrapped in sterile gauze which has been soaked in antiseptic solution will prevent the pain of a hypodermic injection or quick suture of a minor laceration.—AARON BORTIN, M.D., in *Med. Times.*, Sept., 1937.

[This simple procedure could be used routinely to prevent the pain of the first injection of Novocain and make local anesthesia entirely painless. However, dexterity in the use of the needle should render it unnecessary in giving parenteral injections, except to highly neurotic and sensitive patients, though it might be useful in placing one or two simple sutures.—Ed.]

Heat Therapy

It is common knowledge that heat applied to the body produces dilatation of the peripheral blood vessels, while cold stimuli cause contraction. Many physicians do not realize, however, that heat applied to one part of the body will result in vasodilatation in other parts; e.g., heat therapy to one hand increases the blood supply in the other hand.

In order to obtain maximal peripheral dilatation, it is necessary to use *slowly increasing* degrees of heat, rather than a sudden high temperature. Several sources of heat may be used: (1) A sheet-metal canopy containing electric light bulbs; (2) hot fomentations; (3) Russian steam bath; (4) diathermy; and (5) the ingestion of hot fluids. The last method was the least efficient, primarily.—C. W. DAIL, M.D., in *Arch. Phys. Ther.*, Mar., 1938.

Treatment of Toxic Goiter by Deep Roentgen Therapy

DEEP-THERAPY roentgen radiation is an efficient method for the treatment of toxic goiter. It will act equally well whether the patient has been previously treated with ordinary roentgen-rays or not; but if there has been much of the latter, there is danger of telangiectasis. It is of definite value in postoperative recurrences, and is not a bar to subsequent operative treatment.

One course of treatment consists in giving five irradiations to the thyroid: (1) Right antero-lateral; (2) left antero-lateral; (3) right postero-lateral; (4) left postero-lateral; (5) to the whole gland, directly from the front. The total depth dose should be not less than 80 percent of a skin erythema dose. Mild cases may be kept ambulatory; severe cases should be kept in bed during treatments and for one month afterward.—E. P. POULTON, M.D., in *Proc. Roy. Soc. Med.*, Feb., 1938.

And don't ever let my subscription to CLINICAL MEDICINE AND SURGERY run out. Always notify me in plenty of time.—Dr. H. M. W., Ohio.

Ultraviolet Irradiation

ULTRAVIOLET IRRADIATION is very helpful in producing a prolonged superficial hyperemia. This appears from six to twenty-four hours after application, depending on the dose, and may last up to a week. This hyperemia is of benefit in improving the nourishment of skin-organs, such as the roots of the hairs, or in hyperkeratosis due to deficient circulation. It may be useful in some cases of the torpid forms of acne. It is of greatest value when applied to extensive surfaces of the skin, or to the whole body. It reacts on the pro-vitamins (ergosterol) in the skin, producing vitamin D, which prevents and cures rickets. It is also a *general tonic* and stimulant to nervous tone.

It has a disinfecting effect on some superficial fungus diseases, such as pityriasis versicolor. It is very helpful in local circulatory disturbances, as chilblains in young adults and children, and cold hands and feet in adults, if there is no arterial obstruction. Torpid ulcerations and wounds heal more quickly under ultraviolet irradiation. As a general effect, we may mention its property of fixing iron in the red blood cells.—F. NAGELSCHMIDT, M.D., in *Br. J. Phys. Med.*, Feb., 1938.

★ Books ★

Wiltzie: Intestinal Toxemia

CHRONIC INTESTINAL TOXEMIA AND ITS TREATMENT. With Special Reference to Colonic Therapy. By James W. Wiltzie, A.B., M.D., Consultant in Physical Therapy at the Binghamton City Hospital, Binghamton, N.Y. Baltimore: William Wood & Company. 1938. Price, \$3.00.

Chronic intestinal toxemia ("autointoxication") has been for years a controversial theme for enthusiastic consideration and contemptuous disparagement.

Dr. Wiltzie marshals an array of unimpeachable authorities, scientific data, and his own extended personal experience, to prove the existence and ramifications of intestinal toxemia, and implicates the colon as an important focus of infection. He demonstrates the physiology and pathology of the gastro-intestinal tract and of other more or less remotely related portions of the body in general. The indications and technic for colonic irrigation are minutely detailed and illustrated with numerous case histories to direct attention to variously indicated adjunctive therapy, with prescriptions and formulas which should be helpful.

This is a book upon a sadly neglected yet exceedingly prevalent condition. A studious perusal of the work will enable any practitioner to enlarge his diagnostic ability and to achieve amelioration in much, otherwise, intractably chronic impairment of health. J.E.G.W.

CLINICAL MEDICINE AND SURGERY is certainly a unique journal. I have never seen another one like it. There are so many different phases that should please and interest every physician. Please accept my congratulations.—H. M. D., M.D., Georgia.

MacKee: Radiation Therapy of Skin Diseases

X-RAYS AND RADIUM IN THE TREATMENT OF DISEASES OF THE SKIN. By G. M. MacKee, M.D., Professor of Clinical Dermatology and Director of the Department of Dermatology (Skin and Cancer Unit), New York Post-Graduate Medical School and Hospital, Columbia University; Consulting Dermatologist, St. Luke's Hospital; etc.; Third Edition, Revised. Philadelphia: Lea and Febiger. 1938. Price, \$10.00.

Roentgen-ray therapy has justified itself as the most useful method in the treatment of skin diseases yet available. "Roentgen therapy is employed less frequently now in dermatology, and it is possible that it will

be used still less frequently in the future. There is an increasing disposition to use x-ray treatment only when definitely indicated. Thirty years ago certain dermatoses were treated with roentgen rays because there was no other equally efficacious remedy. For instance, warts of various kinds will often respond more favorably to injections of bismuth or arsenic or to some other agent than to roentgen rays. Properly applied electrosurgery will cure 95 percent of plantar warts, whereas only 70 percent can be cured with safe amounts of radiation therapy."

Modern therapy is stressed throughout the work and emphasis is never placed on the use of roentgen rays or radium when other methods have proved efficacious. Both ultraviolet irradiation and roentgen-ray therapy are advocated in the treatment of erysipelas, for example. The author is very impartial in his discussion of the relative values of surgical, medical, and radiation therapy for tuberculous adenitis, and avers that, in certain cases, surgery will yield better results.

The last 33 pages are devoted to a discussion of medico-legal problems, which is of value to any physician or surgeon. The reviewer was never before so forcibly aware of the responsibility devolving on a charity dispensary physician, and wonders if he would ever undertake such part-time, non-remunerative work again.

The book is arranged in sequential chapters, which first present the essentials of radiation physics, the effects of roentgen rays and radium on normal and abnormal tissues, types of equipment and applicators, practical roentgen-ray technic for the beginner and advanced student, and then the clinical aspects of therapy for skin diseases, including benign and malignant new growths. A chapter is devoted to a discussion of idiosyncrasy to roentgen rays, and the results obtained from a questionnaire sent to radiologists are presented. Certain of the specialists felt that an occasional patient would suffer a radiodermatitis following a very slight exposure to roentgen rays.

★ News ★

American Congress of Physical Therapy

THE seventeenth annual session of the American Congress of Physical Therapy will be held at the Palmer House, Chicago, Ill., September 12 to 15, inclusive. All physicians interested in physical therapy will find this a highly instructive occasion. Full particulars may be obtained by writing to DR. A. R. HOLLENDER, 30 North Michigan Blvd., Chicago, Ill.

A Living for the Doctor

The Business of Medicine and the Art of Living



Associate Editor: Ralph L. Gorrell, B.S.M., M.D., D.N.B.

The Doctor's Living

By GEORGE B. LAKE, M.D., Waukegan, Ill.

WE HAVE no means of knowing how Imhotep, Asklepios, and Father Hippocrates collected the living which was due them for the valuable services they rendered to their communities and to the world; but since the two former personages were considered as gods (at least after they died) and the latter was almost in the same class, it seems probable that they were supported from ecclesiastical revenues which, so far as we know, have always been ample.

As a matter of fact, the physicians were, very commonly, also priests, up to as late as the twelfth or thirteenth century A.D., and even when they were not they were in a class by themselves—ministers and public servants, who lived upon the bounty of the grateful ones whose sufferings they had relieved.

During the Middle Ages, physicians were so rare that their services were not available to all and sundry, but were reserved for the lords and barons, who retained them as members of their households, as they did a chaplain and a court fool or jester, so that their economic status was never a matter of doubt or conjecture.

When those days passed and doctors became sufficiently common to be able to practice as individuals, they were still people set apart, ministering to the needs of whosoever consulted them and accepting whatever fee was tendered to them, as an "honorarium," rather than as a clear-cut indebtedness on the part of the patient. This attitude was wellnigh universal in the medical profession up to the latter part of the nineteenth century, and still colors the thinking of a large number of physicians, particularly the older ones, so that they are unable or unwilling to look directly and openly upon their professional work as the source of their income, as well as a service which they render to humanity.

A generation or two ago, this way of looking at the matter was reasonably satisfactory, from an economic standpoint, but it is no longer so. The people of the twentieth century tend, more and more, to estimate all values, even that of success, in terms of dollars and cents, and it is time that those physicians who have to depend upon their professional labors for a livelihood were readjusting their outlook to the standards of these days, rather than to those of a bygone time, if they hope to maintain the place in the fabric of society to which their accomplishments would justly entitle them.

Physicians are, therefore, faced, much against the will of most of them, with a set of pressing economic problems, which they must solve, individually and collectively, in some reasonably satisfactory way, unless they are able to face with equanimity the prospect of being absorbed into the politically governed machine known as State Medicine.

What Is a Living?

A living from the practice of medicine means more than the receipt of enough goods or those tokens of value received, exchangeable for goods, which we call money, to keep body and soul together, for the physician is and should be considered a member of the highest intellectual and social class in his community and is under a certain obligation to live in a manner befitting his position.

The doctor's living, then, signifies a sufficient income to provide him with a reasonably comfortable and convenient home and office, an adequate and well balanced diet, and suitable and sightly clothing for himself and his family; money to educate his children satisfactorily and to keep up the progress of his own education; seemly and

mechanically correct means of transportation; and enough to provide for the maintenance of his family, in case of his untimely death, or to enable him to enjoy periods of leisure and relaxation throughout his professional career, and to spend his twilight years in the pursuit of those avocations which have claimed his interest and enthusiasm during his youth and early maturity. This may seem a full program, but it is certainly not an excessive one, and every physician should set it before him as a minimum of achievement.

In order to bring such an ideal into reality, the doctor must first earn a sufficient income; then collect it; and then spend it in such a way as to extract the most richness from daily living, while setting aside a definite sum each week or month (in the form of life insurance and other sound investments), to provide a fund for the support of his family, in case of his death, or of himself when he finds that he is no longer able to hold his own with the younger men, or is discovering that his zest for his professional work is flagging, so that he approaches his duties by an effort of will and without the eagerness which is a characteristic of those who have won a large and enduring position among their confreres and with the lay members of their communities. When that time comes, if it ever does, the physician should be in a financial position to retire from active practice and devote the rest of his life to the cultivation of his mind and soul and the enjoyment of the fruits of his earlier endeavors.

How to Gain a Living

The doctor who is unable to earn a living has probably fallen into that distressing situation by getting into a rut and failing to work his "acres of diamonds." People will no longer pay a physician gladly just for looking profound and passing out a casual prescription or box of pills. They want to feel that something is really being *done* for them. Moreover, the practitioner who sends all his minor operative work to self-styled or fully qualified surgeons, is closing his door upon some of his most remunerative patients, whose maladies he could treat perfectly satisfactorily, if he is not too lazy or too sunk in routine to do some months of real, sincere study. To gain a living we must first really *earn* it.

The man who works *consistently, sincerely, and intelligently* to benefit his patients may, because of certain circumstances, never become wealthy, but he will be sure to earn a living. If one finds that minimum income in danger, it will be well to sit down along with those three adverbs and honestly answer the question, whether or not they all apply to one's professional

conduct. If they truly do, the trouble lies elsewhere—probably in collection or spending or both.

Methods of doing business have changed immensely in the past generation or two, but it seems probable that doctors have done less than almost any other group of people, in the way of changing their business methods to meet the new standards.

The man whose livelihood depends upon the practice of his profession may find that he needs a new business outlook even worse than he needs a new automobile or diathermy machine. He will have to learn something about credit ratings, financing companies, flat and annual fees, collection methods, and record keeping. He may have to come, in self defense, to the outspoken realization that people are no more *entitled* to free medical service than they are to free groceries, coal, or rent, and demand his share of the millions of dollars which are being disbursed by charitable institutions for the relief of the destitute.

When one begins to talk of spending, the discussion becomes rather personal, but it cannot be shirked, because it is an integral part of the subject of gaining a living. Nor is it merely a matter of spending money, though that is the most critical point. We must consider how we spend our time (for that is the stuff of which life is made) and our energy (for that is the agency by which increment is gained), as well as our dollars. Here is the reef upon which many a good financial ship has gone aground. Remember, the key words are: *earn, collect, save*. These are the principles which this Department is trying to present in a practical way.

The world is going through a difficult period. Scarcely a man or woman has escaped the pressure of the economic situation. If we look upon distress, difficulties, and even real suffering as instruments purely of destruction, they will surely lead us to poverty, disease and death. But if, like a wise patient, we recognize pain as merely a symptom of some more or less vital disorder, and then, as wise physicians, proceed to diagnose the malady and apply the proper treatment, even if it hurts at the time, we shall be on the way to recovery.

If we look upon discomfort and privation as millstones, we may well be ground between them; but if we recognize them as goads to stir us, by the keen desire for the good things we are missing, out of our ruts and complacency into stronger and more intelligent efforts to ameliorate our condition, we will come, ere long, to see that these circumstances are like the harsh words of the coach or trainer, which spur a football team or a boxer to the effort which snatches victory out of what seemed to be inevitable defeat.

★ Notes and Abstracts ★

Some Lawsuits I Have Met*

A MAN who had sustained a shoulder dislocation went to the local physician, who reduced it properly and proved it by a roentgenogram. A few days later, the dislocation recurred, and was again reduced and another x-ray picture taken. Several days later, the patient appeared in a large city hospital, where a big-town physician tried, but failed, to reduce the dislocation by placing his foot in the axilla. He pulled until he heard "something pop."

Within a few days, the patient was subjected to an open operation in another hospital. After a lapse of time, in which the shoulder was slow in healing, the patient was informed that, because of improper treatment by the home-town physician, the shoulder would not heal for a long time—if ever. The patient at once brought suit for \$50,000 against the first physician.

Analysis of the situation and the numerous roentgenograms revealed that the city physician had fractured the humeral tuberosity when he pulled so hard, and that the surgeons had injured the rim of the glenoid fossa with the Lane "skid," which they testified as having used to get the head of the humerus back into the fossa. And what was more to the point, these men, realizing what they had done, felt it necessary to hide their own culpability, and throw the blame on the defendant. After explaining the roentgenograms to the jury, this point was made abundantly clear to them. The lawyer for the plaintiff asked whether I expected to be paid for my services as an expert. I replied, "Certainly I expect to be paid, just as you expect to be paid for coming here and trying this case." This remark slowed him down considerably, and he lost the case.

In another case, a young man who had suffered a severe ankle injury, necessitating amputation, was prevented from showing his amputation stump to the jury because the defendant's lawyer objected and the judge sustained the objection. The law apparently is clear that while a patient cannot exhibit how poorly he walks (as this may be easily faked), he is entitled to show his stump and x-ray pictures thereof, because "such exhibition is the best obtainable evidence of the extent and character of the injury and the results" (Ford vs. Providence Coal Co., 124 Ky. R., 99 S. W., R. 609). The Court of Appeals held that the refusal to

allow exhibition of the plaintiff's stump was an error and remanded the case for a new trial, but before the case came up again the defendants settled by paying a satisfactory amount.

Physicians' or technicians' responsibility: If the technician is in the physician's employment, he is liable under the maxim, "respondent superior," or "the master is responsible." It is usually held that physicians are not responsible for acts of nurses or technicians, when such acts as are brought into question constitute duties usually and normally performed by them. This is particularly true if the nurse or technician be not in the employ and under the specific directions of the physician. It has been held by highly respected courts that, when a nurse, while performing the regular duties of her profession, does something or fails to do something which she should have done, the physician in charge of the case may not be held liable, as for example, if she breaks a needle while giving a hypodermic medication. On the other hand, if a lay person, not a licensed or graduate nurse, breaks a needle, the physician is liable. (This is very important to physicians who have only self-trained employees.—Ed.)

A graduate nurse asked the physician's permission to instill silver nitrate solution, 1-percent, into a newborn infant's eyes, and received such permission. By error, she used a 30-percent silver nitrate solution, with terrible results. The physician was sued for malpractice, but was found not guilty, because the nurse had done it while acting as an employee of the hospital, not as an agent of the doctor.

I. S. TROSTLER, M.D., F.A.C.R., F.A.C.P.
Chicago, Illinois.

[*Why was any such strength solution allowed in the hospital?* It will pay any physician well to make sure of any solution he administers. On several occasions, we have seen hospital operating room nurses set out a "Novocain solution" that actually was cocaine, Nupercaine, and even alcohol. In the latter case, the alcohol was given into the skin and subcutaneous tissues, as well as into the third branch of the fifth cranial nerve (alcohol injection of trigeminal neuralgia patient). The patient, a debilitated woman of 63, suffered a localized abscess, with consequent drainage and scarring, but fortunately, did not sue.—R. L. G.]

*Radiol., July, 1937.

Practice for Sale

NOT THE LEAST interesting column in our national and state journals is that headed by the line "Practices for Sale." We read that a very lucrative practice is offered for sale in South Dakota, that a town in Nebraska needs a physician who would soon be earning a large income, and that an Illinois physician wishes to dispose of a practice which has made him a great deal of money.

The consistent emphasis on one aspect aroused my curiosity a short time ago, and I wrote to a number of those sponsoring such advertisements. In return, I received detailed figures on cash income, net income, expenses, cost of living, and prospects of increasing that income. Two answers suggested that the city or town in question might be a pleasant place to live.

Apparently it is a common belief that the members of our profession are interested first and foremost in financial returns. Why this should be so is difficult to determine, as there is no more altruistic profession than ours, with the possible exception of the clergy. Man "does not live by bread alone," nor can a large income blunt our senses to commercialized, disagreeable, or coarse surroundings. The true physician must be an artist, with an appreciation of the joy of living, literature, and the arts, or he degenerates into a mechanical marvel, capable of seeing so many patients and receiving so much money per hour or day.

R. L. GORRELL, M.D.

Clarion, Ia.

Physical Examinations

TO WATCH some doctors doing a physical examination reminds one of that old story of the man employed by a large railroad line to test the wheels of the railroad cars for cracks, by tapping the rim of the wheel lightly with a hammer.

One day, he spied the president of the road alighting from a private car, and hastening up to him, said proudly, "Sir, I am employed by your road to tap the wheels of these cars, and in a period of over twenty years I have never either missed a day from work or once reported late for duty."

"Well, that certainly is a dependable record," replied the president, "and why do you tap these wheels?"

"Oh, for no reason in particular."

Some doctors do physical examinations like that; thumping across chests and abdomens as though the sole object were to cover territory.—ROGER F. LAPHAM, A.B., M.D., in "Disease and the Man" (N. Y.: Oxford University Press).

Leisure for the Physician

PHYSICIANS are often the earliest victims and the greatest sinners in those very things which they are trying to control among their patients.

The community at large, and even doctors themselves, do not always appreciate the heavy strain that is shouldered with seeming nonchalance by the doctor who deals all day long with the ills of humanity, spiritual, mental, and physical.

The actively practicing physician requires more real leisure for the maintenance of his own health than do most other individuals in professional and business life. A healthy personal program, with ample sleep and exercise, do not fit the present scheme of demands upon the physician. It must in some way be made to fit, as the health of the doctor is truly one of the important problems which face the medical profession today—PAUL D. WHITE, M.D., F.A.C.P., Lecturer in Medicine, Harvard University Medical School, Boston.

★ Books ★

Fabing & Marr: Fischerisms

FISCHERISMS: Being a Sheaf of Sunday and Divers Utterances Culled from the Lectures of Martin H. Fischer, Professor of Physiology in the University of Cincinnati. By Howard Fabing; a Second and Enlarged Edition by Ray Marr. Illinois: Charles C Thomas. 1937. Price, \$1.50.

Hippocrates, the Father of Medicine, conveyed much of his teaching in the form of those "terse, pithy sayings" which we call aphorisms. He didn't invent the form, for Koheleth (or Solomon), King of Israel, seems to have been the original wise-cracker. Ever since Hippocrates, physicians have been notable aphorists — Boerhave and Osler, for example, and Martin Fischer, too.

This beautifully made little book contains about 50 pages of the kind of things his students jotted down on the margins of their note books when Fischer was lecturing—and didn't forget! We'd like to give you some samples, but the copyright doesn't give that privilege even to reviewers, so, if you want to read them you'll have to buy the book; and if, after reading them once, you'd sell it for five times what you paid, something is wrong above your supercilious ridges. It was supposed to be privately printed for Fischer's students, but if you hurry, maybe you can get one. We wouldn't take ten dollars for our copy of the first edition, and this second one has even more of the good stuff in it.

G. B. L.

The Seminar

"A Monthly Postgraduate Course"



(NOTE: Our readers are cordially invited to submit fully worked up problems to the Seminar and to take part in the discussion of any or all problems submitted.

Discussions should reach this office not later than the 5th of the month following the appearance of the problem.

Address all communications intended for this department to The Seminar, care CLINICAL MEDICINE AND SURGERY, Waukegan, Illinois.)



Problem No. 5 (Diagnostic)*

Presented by Harry L. Reinhart, M.D.,
Columbus, O.

(See CLIN. MED. & SURG., May, 1938, p. 230)

RECAPITULATION: A white man, 34 years old, who had been sick for 10 weeks, came complaining of "pain in the left chest and shoulder, slight cough, afternoon fever, and a general 'run down' condition." During the seventh and eighth weeks of his illness his temperature was normal, and then went up again. He had lost 20 pounds in weight.

On admission to the hospital his temperature was 102°F.; pulse, 120; respiration, 20; blood pressure, 102/54. Chest examination showed evidence of consolidation in the lower lobe of the left lung (confirmed by x-rays). Paracentesis of the lower left thorax showed a gram-negative bacillus.

On the 75th day of his illness he developed acute abdominal symptoms, with a fall in temperature of 6°F., and a laparotomy revealed a pelvic abscess.

Laboratory examinations were essentially negative except a moderate secondary anemia; leukocytes, 7,250; and urine showing traces of albumin, sugar, blood cells, and casts.

His temperature, pulse, and respiratory rate remained high, and he died on the 104th day of his illness.

Requirements: Suggest, in detail and giving reasons, the cause of the signs and symptoms, and mention further studies you would have made.

Discussion by R. L. Gorrell, M.D.,
Clarion, Iowa

A persistent process in the lung makes one think of: (1) tuberculosis; (2) lung abscess; and (3) a neoplasm. A tuberculo-

port should have broken down and formed a liquefying mass. Clinical symptoms should be more apparent; also, râles should be heard and the tubercle bacillus should be found in the sputum (which is not mentioned). The occurrence of healed tuberculous areas is without clinical significance, as such areas may be found in the roentgenograms of many non-tuberculous adults.

Lung abscess cannot be ruled out. A previous history of tonsillectomy, upper respiratory infection, or pneumonia (which are etiologic agents of lung abscess) is not given. Lung abscess may develop in areas of lobar pneumonia, but more frequently occurs following the interstitial pneumonia of epidemic influenza (Cecil). The x-ray report does not mention whether the mass was in contact with the diaphragm. Such a location might make one think of an infectious process which had burrowed through the diaphragm.

The possibility of a pulmonary neoplasm must be considered.

The identification of gram-negative organisms in the material obtained by thoracentesis brings up the possibility of the typhoid, colon, or other similar bacillus as the etiologic agent.

Administration of the laxative apparently resulted in a rupture of the intestinal tract, with the formation of a localized abscess. A chill is a sign that there has been a sudden onset of an infective process. A subnormal temperature follows the perforation of a typhoid intestinal ulcer. That leukocytosis failed to appear, may be the result of one of two factors: (1) The patient's resistance was so poor that leukocytosis could not occur (or conversely, the infection was so overwhelming that the blood marrow could not respond); or (2) the infection was of a type that did not cause leukocytosis. Typhoid and undulant

*Adapted from Ohio State M. J.

fever are examples of such types of infection.

Surgeons of this country are generally ten years behind the times, as such an abdomen should be investigated by *peritoneoscopy*, which would reveal the infective process. This procedure can be carried out under local anesthesia, through an incision one inch in length, and the patient need remain in bed only 24 hours.

Blood cultures for the detection of undulant fever, typhoid, and other bacteria were no doubt carried out. If there was further investigation of the glycosuria, it is not mentioned in the report.

Discussion by N. Odeon Bourque, M.D.
Chicago, Ill.

This problem has three aspects:

- 1.—The upper chest lesion.
- 2.—The lower chest, which may be a subphrenic affair.
- 3.—The pelvic abscess, with its characteristics.

The clinical chest findings, low blood pressure, blood count, cough, afternoon fever, loss of weight, all point to tuberculosis, but in the light of the two x-ray examinations, the rapid progress does not bear this out.

The dome-shaped lower chest lesion makes one think of a subphrenic or lung abscess, a restricted pleural effusion, a new growth, or a cyst (parasitic or otherwise).

The findings of the first and second x-ray examinations seemingly did not coincide. Fluoroscopic examination, to determine the movements of the diaphragm and of the mass, would have been valuable. Cystoscopic examination was indicated by the presence of blood in the urine. An adrenal or kidney tumor may have been a factor.

Although a paracentesis was done in the seventh interspace, no reason was given as to the indication. Was there fluid? The author refers to a gram-negative rod, which could be the typhoid, Malta fever, influenza, or colon bacillus. One should know whether the organism was motile or non motile, also its general characteristics, etc. Agglutination tests and animal inoculations were indicated. The presence of the colon or typhoid bacillus would point to a primary abdominal lesion.

The history of the occupation, residence, and environment of the patient, as well as that of the nature of the beginning of the disease, is important. Did the disease begin insidiously, or did it begin suddenly? Was there pain from the beginning, was the pain only in the chest, and was it influenced by breathing and rest? Was there much expectoration? Were there any sputum, Widal, or stool examinations? If so, with what results?

Was there pain or any other disturbance accompanying the intake of food, the act of defecation or of micturition previous to the acute attack? What was the character of the stools? The pelvic abscess may have been the result of a perforated rectal or colon ulcer, diverticulitis, perforated appendix, perforated typhoid or gastric ulcer, or by the gravitation of infected material from the lesion of the lower left chest. The drastic cathartic probably was a factor in the perforation of the ulcer. Intestinal and colon ulcers may be associated with tumors of the adrenals, as well as with tuberculosis.

The exquisite tenderness of the entire abdomen, without localization, accompanied with signs of shock, indicated perforative peritonitis.

The blood findings are not dated, therefore one cannot evaluate their significance save that, if the abscess existed at that time, it was probably walled off. The character of the back pain would make one think of pleurisy, adrenal or kidney disease, or pancreatitis; the sugar in the urine would bear out the last suggestion.

The confronting questions are:

- 1.—Did the pelvic condition precede or follow the lung condition?
- 2.—Is one dealing with separate entities?
- 3.—Was there a relation, either by direct extension or by emboli?

Embolic processes often present the first signs of a pre-existing condition.

Diabetes must be considered as a possible factor. In this connection, a complete blood and urine examination would have been of some value.

The back and shoulder pain may have been due to phrenic nerve irritation and, reflexly, to the 3rd, 4th, and 5th cervical nerves.

Discussion by S. A. Hatfield, M.D.,
Columbus, O.*

One should not attempt to make a positive diagnosis until a careful history is taken and physical and routine laboratory examinations are made. There are times, of course, when emergency measures must be instituted before the case can be completely worked up. However, in the patient under discussion, about 10 weeks had elapsed before he was admitted to this hospital.

We are all inclined at times to be careless in proper routine examinations, and in most instances our errors are not the result of our lack of knowledge, but because of a snap opinion or an opinion not backed up by adequate data. It also has been my observation that the more experienced surgeon or clinician will always consider the most

*Adapted from *Ohio State M. J.*, Aug., 1937.

common possibility first in his differential diagnosis; then the more unusual conditions are considered, if the first cannot be read into the picture. I suppose clinical teachers are responsible for the fact that students and interns give equal consideration to the more obscure diseases, because of the emphasis placed on them in classroom discussion.

The outstanding points that one should have tried to explain in the case presented are: (1) Progressive weight loss and loss of strength; (2) a remittent type of fever for the first month of the illness, which finally returned to normal in the eighth week; (3) a return of fever, with pain in the left chest, in the ninth week, and x-ray findings suggesting a subdiaphragmatic abscess.

In the presence of a continuous low-grade fever, with no outstanding physical findings associated, one should attempt, by routine blood culture, the various agglutination tests, blood counts, repeated urine analyses, sputum examinations, and spinal fluid check, to find some positive evidence that might give a lead for more specific investigation.

A rather mild ambulatory type of typhoid, subacute bacterial endocarditis, tuberculosis, low-grade infections of the genito-urinary tract, and many other diseases, are accompanied by a low-grade fever. This would seem to be the field for our further detailed study.

Solution by Dr. Rinehart

On the 10th hospital day, agglutination tests were made on the patient's blood, and a culture of the fluid aspirated from the chest. The agglutination test for typhoid ("O" antigen) was positive; tests for paratyphoid A and B, and for tularemia and undulant fever were negative. The chest fluid showed hemolytic *Staphylococcus aureus*; gram-positive, spore-bearing rods (*B. subtilis*?); and a gram-negative rod, which was identified as *Bacillus typhosus*.

The autopsy report (anatomic diagnosis) showed:

- 1.—Typhoid fever.
- 2.—Subdiaphragmatic abscess, with perforation of the left diaphragm.
- 3.—Perforation of the lower ileum.
- 4.—Pelvic abscess.
- 5.—Empyema of the left pleural cavity.
- 6.—Atelectasis of the left lung.
- 7.—Emaciation.

The diagnosis of this case was established clinically by the identification of typhoid bacilli in the fluid aspirated from the chest (subdiaphragmatic abscess?), positive Widal test, demonstration of the typhoid bacilli in the subdiaphragmatic abscess at autopsy, and correlation of the morbid changes summarized in the anatomic diagnosis.

The laboratory diagnosis of typhoid fever

is more frequently made by the Widal test than by culture and identification of the organism. The Widal test has been in use for about 40 years and has proved a very reliable means of diagnosis. A few years ago typhoid vaccination cast a slight cloud over the reliability of the Widal test, which, however, as now conducted, for both "O" and "H" agglutinins, "insures the diagnosis of typhoid fever in the vaccinated, since vaccination gives rise to the "H" agglutinins only" (Felix). In this case the agglutination of the "O" antigen occurred with a dilution of 1/320 of the patient's serum.

Presumably we may classify this case as one of mild typhoid fever during the first eight weeks of his illness, complicated by a subdiaphragmatic abscess which was manifest clinically during the ninth week. Abscesses are a notable complication of typhoid fever and may occur in conjunction with or long after the disease. They occur particularly in the spleen, liver, bones, and serous membranes, such as the pleura and peritoneum.

The clinical course in this hospital began dramatically with a perforation of the intestines and ensuing peritonitis. Intestinal perforation in typhoid fever occurs most frequently in the fourth week, but may occur as late as the tenth week, when it is associated clinically with a recrudescence of the disease, and anatomically with ulcerations of solitary lymph follicles or Peyer's patches which were previously uninvolved. The perforation in this case was in the lower ileum. The empyema probably followed the extension of the subdiaphragmatic abscess through the diaphragm.

The morbid changes listed in the anatomic diagnosis are not exclusively characteristic of typhoid fever, but may be duplicated by many other organisms. Hence the really significant diagnosis may be missed at autopsy unless the specific etiologic agent is demonstrated. This is true of many infectious diseases, and demonstrates the fallacy of "circumstantial evidence" in contrast to scientific demonstration.

Problem No. 7 (Diagnostic and Therapeutic)

Presented by R. L. Gorrell, M.D.,
Clarion, Ia., and H. C. Kluever, M.D.,
Fort Dodge, Ia.

Mrs. B. B., AGE 69, whose health had always been good, had had varicose veins, which had been injected 5 months previously.

Present complaint: Coma. One week previously, she had complained of a severe

Continued on page 343

Clinical Notes and Abstracts



Water Balance*

NATURE HAS ALWAYS regulated its own fluid balance and will continue to do so until disease or the surgeon or both interfere.

The amount and type of fluid given to re-establish the normal fluid balance depend upon the amount and type of fluid lost. In some cases the order, "Push fluids," may not be rational. Very sick patients cannot handle large quantities of fluid, yet frequently the sicker the patient the more fluid he is given.

The two fluids most commonly used in surgical cases at Ravenswood Hospital are physiologic salt solution and a 5-percent solution of dextrose in such a solution.

The cases in which the loss of chlorides is greatest are those of gastrointestinal conditions with gastric drainage, vomiting, gallbladder drainage, intestinal obstruction with drainage, and fistula. For such cases Collier prefers Ringer's solution, as he believes it is the one least apt to cause edema, which occurs throughout the body, but is most apparent in the lungs, heart, and most dependent parts. It is due to the retention of chlorides.

The occurrence of water-logging can be determined early from the chloride content and carbon dioxide combining power of the blood. Fantus has shown that the mortality is lowest in cases in which the chloride excretion is between 0.6 and 0.8 percent, and highest in cases in which the urine elimination is 10 percent or less.

Another problem in the use of salt solution to re-establish the fluid balance is the occurrence of alkalosis or acidosis. If alkalosis from the loss of chlorides, or acidosis is feared, it is desirable to alternate the salt solution, liter for liter, with a 5 percent solution of dextrose in water. This will give the kidneys an excess of water with which to excrete the less needed electrolytes.

The amount of blood lost during the operation and the loss of chlorides by vomiting may be minimal, yet the patient, being unable to take fluid by mouth, will have a

basic shortage of 3,500 cc. for the first 24 hours after the operation. As this shortage may be greatly increased by excessive perspiration, he must not be kept too warm.

Dextrose solution furnishes nutriment for the liver and water for the tissues. If, during its administration, sugar appears in the urine, the dextrose should be reduced or its use discontinued, since, with every gram of sugar excreted, about 20 cc. of water are lost.

In a series of experiments on human beings, signs of serious dehydration appeared when the loss of water equaled approximately 6 percent of the body weight. In restoration of the normal water balance in a case of dehydration, all other organs will take up their quota of fluid before the kidneys begin to show a normal output. Fluids taken intravenously have a less diuretic effect than fluids taken by mouth.

The purpose of this discussion of the intravenous use of physiologic salt and dextrose solutions has been only to establish a basis for further study of what appears to be a large item of therapy at Ravenswood Hospital. Possibly there is no best or standard solution. Possibly, also, new methods and new solutions will be presented in the future.

EVERETT B. WILLIAMS, M.D.
Dept. of Surgery

Chicago, Ill.

Discussion

By Walter C. McKee, M.D.,
Department of Pediatrics

Chemical balance is a very delicate physiologic process in children, and dehydration in infants is rapidly fatal. In cases of diarrhea in infants and children, treatment to maintain the water balance is indicated because of the loss of fluid. Diarrhea is of enteral or parenteral origin. Diarrhea of enteral origin is uncommon today except in true dysentery. Parenteral diarrhea may occur in association with such conditions as otitis media, pyelitis, and influenza. Frequently it is caused by a high temperature, which deranges the secretion of the gastric

*Abstract, by the author, of paper presented at the staff scientific meeting at Ravenswood Hospital, Chicago, January 20, 1938.

and pancreatic enzymes, resulting in lowered germicidal properties of the secretions. The high temperature may be of atmospheric origin.

Too often, in mild cases of diarrhea and vomiting, the disturbance is erroneously attributed to a gastro-intestinal condition. Starvation of fluid in the first 24 hours is wrong. The fluid loss should be replaced with an alkaline fluid, unless there has been much vomiting, in which case there is often alkalosis. Diarrhea associated with acidosis frequently ceases when the acidosis is corrected. In severe cases of dehydration, Hartman's solution is the one of choice. Occasionally, a blood transfusion is given before the child has received sufficient water. This is dangerous, as *in severe anhydremia blood transfusion is often fatal*.

By Frederick W. Rohr, M.D.,
Department of Obstetrics

During pregnancy, variations in the amount of fluid in the tissues and blood must be watched for constantly. Retention of water must be suspected if the patient gains an undue amount of weight on a supervised diet and her red and white blood cells and hemoglobin drop to a low level. As much of the retained water is stored in the muscles, ordinary visible edema does not necessarily result from water retention. High blood pressure and albuminuria are usual sequelae, but these signs also may be absent. In the case of a 34-year-old para-iii, who came under my observation, the output of urine on the day of delivery was 4,200 cc. and the output on the following day 6,200 cc., yet the blood pressure remained at 130/90 and the urine was free from albumin.

The treatment indicated for water retention in pregnancy is balancing of the fluid intake and output and reduction of the protein, sodium chloride, and sugar in the diet. In severe cases, hypertonic dextrose, sucrose, and magnesium sulphate solutions are given.

Dehydration from abnormal loss of body fluids, with insufficient fluid intake, must be guarded against in the vomiting of pregnancy and during a tedious labor. When marked dehydration develops, fluid must be administered intravenously or subcutaneously.

By Robert H. Johnstone, M.D.,
Department of Medicine

The body with no fluid intake will metabolize about 400 cc. of fluid daily from its own tissues. The skin takes prior rights, and fluid residue is excreted by the kidneys. A loss of fluid equal to 6 percent of the body weight results in dehydration with marked symptoms. Many of the changes

occurring in dehydration are better explained by the loss of sodium or chlorine ions, or of both, than by the loss of fluid alone.

It is advisable to determine which electrolyte has been lost before instituting treatment for dehydration, and to attempt to replace chiefly the one which is most needed. Unwanted electrolytes will be excreted in the urine in the absence of kidney disease.

The administration of a 5-percent solution of dextrose in physiologic saline solution is an excellent method of replacing fluid and electrolytes and providing nutriment in simple cases of dehydration. The dextrose helps to correct the acidosis associated with dehydration, since, in breaking into carbon dioxide, it theoretically combines with the sodium to form sodium bicarbonate. In certain cases of dehydration, good results may be obtained from the transfusion of whole or citrated blood.

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Clinical Observations with Allantoin*

CASES of gangrenous leg ulcers healed after four weeks' dressing with allantoin solution. Another group of ulcers in paralytic cases responded quickly to allantoin treatment, also several cases of varicose ulcer, and it was found that burns and scalds were very interesting fields for observation. Upon the application of allantoin, islets of epithelium formed. Many of them, at first invisible to the naked eye, formed centers from which new epithelial growth could be seen, spreading from day to day with remarkable rapidity. In second- and third-degree burns, allantoin dressings will produce satisfactory results. It not only stimulates epithelial growth but "cleans up" sloughing surfaces in a most remarkable fashion, not only in burns, but in ulcers generally.

Allantoin is not an antiseptic, in the usual acceptance of the term, and its action in this respect must depend upon some influence brought to bear upon the cells, whereby their resistance, stability, and immunity are established and their proliferation promoted.

Allantoin solution brought about healing

* "The Symphytum Officinale and Its Contained Allantoin." (John Bale, Sons & Danielsson, Ltd., London).

in a case of senile gangrene in the heel, in a patient who also suffered from diabetes; and also the closure of an intractable biliary fistula following an operation for gallstones. Ten days after the first application of allantoin dressings, applied by means of a gauze wick, bile ceased to escape and the sinus steadily healed.

An ophthalmic surgeon employed allantoin dressings for a patient having a very extensive and deep burn of the eyeball and lids, due to molten copper, and expressed himself astonished at the results.

Allantoin, when applied locally, does not appear to have any capacity for producing a somatic cell from a malignant one, nor a carcinomatous or sarcomatous cell from a somatic one.

Upon injecting 2 cc. of a sterile 0.5-percent allantoin solution into the solid lung of a patient suffering from pneumonia, leukocytosis occurred. Within two hours the leukocyte count had gone up to 15,000. Later it was 20,000, and distinct improvement and a speedy crisis set in. In another case of pneumonia, where the leukocyte count was 9,000, 2 cc. of the 0.5-percent solution was given hypodermically. In two hours the count had risen to 12,000 and, after another injection, it went up to 20,000 and remained high until the crisis occurred.

The administration of allantoin in pneumonia cases, commencing at the earliest possible moment after the onset of the disease, results in a rapid increase in the number of leukocytes and a relatively low death rate. The mortality of 25 patients not treated with allantoin was 20 percent, while 22 patients treated with this drug showed a mortality of less than 5 percent.

In a later series of observations, it was found that the oral administration of allantoin produced a leukocytosis of from 50 to 83 percent increase, and it has been found serviceable in some cases of broncho-pneumonia and in some septic infections, even the common cold. In influenza and other diseases associated with leukopenia, the effects of allantoin might be investigated with profit.

CHARLES J. MACALISTER, M.D.

Asymptomatic Appendicitis*

IN THE COURSE of other surgical procedures, 2,065 incidental appendectomies were performed on patients whose histories and physical examinations were negative for past or present appendiceal disease. Of this group, studied grossly and microscop-

ically, one-third were found to be normal; one-third to present definite evidence of slight disease; and one-third showed marked pathologic changes—1.7 percent were acutely suppurating or inflamed. There was no increase in mortality in this series over a similar series where the appendix was not removed. The conclusion may be drawn that, in properly selected cases; i. e., those in which the nature of the operation and the patient's condition are favorable, the incidental removal of the appendix is a safe and worthwhile procedure.

HAROLD J. SHELLEY, M.D.

New York City.

[The most obvious contraindication is the necessity for absolute asepsis, such as is needed in cesarean sections. It would seem good practice to wrap up the appendix in gauze, if it is acutely inflamed, and explore or do other surgical work of a less contaminated nature, such as ovarian cystectomy or uterine suspension; then, as a final step, to remove the appendix, and close the wound without introducing the hands or instruments again.—Ed.]

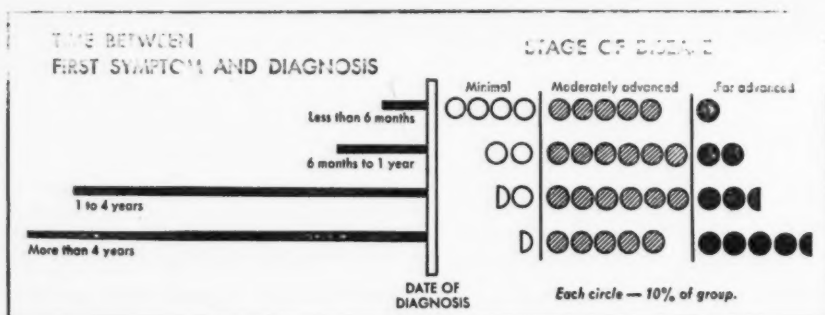
Look for THE LEISURE HOUR among the advertising pages at the back.

Important Points in the Treatment of Appendicitis

- 1.—Operate at any stage, as soon as the diagnosis of appendicitis is made.
- 2.—Use a McBurney incision, through which the appendix may be removed and drainage, if necessary, established.
- 3.—Always remove the appendix.
- 4.—Use suction to remove pus or exudate; do not place gauze within the peritoneal cavity; and on no condition sponge away pus or exudate within the abdomen because it forces infection into the tissues.
- 5.—Do not bury the stump; merely tie it and disinfect it. Robertson, of the Mayo Clinic, has found that the inverted stump is surrounded with pus, up to a period of 21 days.
- 6.—Give the bowel rest by refraining from proctoclysis and enemas at all times, and by supplying water, electrolytes, and calories by continuous intravenous injection of 5-percent dextrose in Ringer's solution.

The mortality in 29 cases of acute, spreading, generalized peritonitis was only 3.45 percent by following these principles, and using morphine freely.—J. SHELTON HORSLEY, M.D., in *Arch. Surg.*, Feb., 1938.

**Arch. Surg.*, Oct., 1937.



Importance of Early Diagnosis in Tuberculosis

THE ACCOMPANYING diagram, based on a study of the experience of 361 patients with tuberculosis, made by Ruth A. Sedar (Social Research Series No. 5, National Tuberculosis Association), which was published with an article by Drs. L. A. Monte and Oscar Blitz in the *New Orleans Med. and Surg. Journ.* for February, 1938, illustrates graphically the importance of diagnosing cases of tuberculosis early.

Of course, many patients do not consult a physician until the disease is far advanced, but there is no excuse, today, for long delay in making the diagnosis after the physician is consulted.

Sciatic and Low Back Pain

SCIATICA is not a diagnostic entity. Tumors of the cauda equina, pelvic diseases affecting the lumbosacral plexus, and lesions showing marked bony changes in the roentgenogram cause certain cases, but no cause has hitherto been determined for a high percentage of cases. In this series of 31 consecutive cases, 24 were due to a displaced intervertebral cartilage.

Symptoms: Pain in the low back region, which radiated toward the hip, down the posterior or lateral aspect of thigh or leg or the outer part of the foot, and which was increased by any type of activity involving motion or jarring of the spine (bending over, climbing stairs, arising from a sitting position) or increase of cerebrospinal fluid pressure (coughing, sneezing, straining). Over one-half of these sciaticas developed after an injury.

A diminished or absent ankle-jerk was the commonest neurologic finding. The most valuable diagnostic aid is the examination of the total protein in the cerebrospinal fluid. In this series, it was reported as over

40 mg. per 100 cc. in over one-half of the cases. Lipiodol studies were used to clinch the diagnosis. Removal of the herniated portion of the disc usually could be accomplished through a small laminectomy, so that the disability was short. *Uniform relief of pain followed.*—E. F. FINCHER, M.D., and E. B. WALKER, M.D., in *South. Surg.*, April, 1938.

Look for **FACTS AND COMMENTS** among the advertising pages at the back.

Simple Test of Renal Function*

THE LEAST expensive and one of the most reliable tests for renal function is carried out thus: About 6 o'clock of the evening before the test, the patient has his usual supper, which should not contain more than 200 cc. (a glassful) of fluids. After this, he neither eats nor drinks anything until the test is over. Urine passed at bedtime or during the night is not saved.

On awakening in the morning, he passes urine, which is kept in a separate bottle. He remains in bed and urinates one hour later, and again an hour after this, each specimen of urine being kept in a separate bottle. The specific gravity of each of the three specimens is measured, and the highest taken as the patient's maximum. The patient is instructed to bring two specimens, if he cannot collect three.

The patient has had, with little inconvenience, about sixteen hours in which to concentrate the urine. If kidney function is unimpaired, the specific gravity will exceed 1.023, and often go as high as 1.032. In severe grades of renal impairment, the specific gravity will be found to be only 1.010, and in intermediary cases, figures between these extremes will be obtained. If the patient is edematous, the test may not be

*"Practical Talks on Kidney Disease" (Charles C Thomas, Baltimore).

accurate while the fluid is being evacuated.

This highly concentrated urine may also be used for the usual urine examination, and will prove highly satisfactory. If much albumin is present, the physician should remember to subtract 0.003 for every 1 percent of albumin present, as albumin raises the specific gravity of the urine.

EDWARD WEISS, M.D.

Philadelphia, Pa.

Obstetrics in the Home

FOR THE GENERAL CLINICIAN, who delivers women in the home, the answer to the question of asepsis is a glorified pressure cooker, which may be acquired at any hardware store (or see "C. M. & S.," June, 1938, page 296). It will not accommodate large amounts of linen at one time, but will give a 20-pound pressure of steam for 20 minutes.

All these are to be autoclaved: (1) One large bag of good quality, to prevent dust contamination; (2) two half-sheets, one folded whole sheet, 3 towels, sterile gauze pads, sterile gauze, and cord, made up in one sterile pack with a double cover (three such packs); (3) the umbilical cord set, consisting of 3 flat sponges, a roll of bandage, a pair of scissors, 2 hemostats, and a length of cord tape, double packed; (4) repair set, consisting of luer syringes of various sizes, 2-percent Novocain (procaine) solution, injection needles, repair needles, sutures, hemostats, needle holders, 3 sterile towels, gauze, and sponges, all double packed; (5) sterile gloves, mask, cap, and gown; (6) sterile scrub brushes and green soap.

Delivery should be made in the cross-bed position, with the hips slightly out over the edge of the bed and the patient lying on her back with her feet resting on kitchen chairs placed against the side of the bed.—R. W. TANDY, M.D., in *Rad. Rev. & M. V. M. J.*, July, 1937.

The Emotionally Dead

THIS SPECTACULAR TITLE might be more fitting in some pulp magazine, but is here inserted to call attention to those unfortunate who suffer from "split-personality," dementia precox, or schizophrenia. The disease itself is anything but spectacular in its early stages, as it steals upon young men and women between 18 and 25 years of age, yet it destroys more useful lives than tuberculosis or cancer.

The patient is able to perceive external affairs, often with surprising attention and clarity, but he has lost interest and emotional reaction; there is neither joy nor

sadness in the contemplation of relatives or friends; ambition, hope, shame, love, all are gone. He is insensitive to injuries, to bodily discomfort, to pricking with a needle, although the presence of food will often arouse an interest that is otherwise wholly lacking.

Peterson says¹, "Dementia precox is the psychosis that surprises the general practitioner by the capricious and bizarre symptoms, which are altogether outside his experience. It is here that the extraordinary happens—the sudden motor explosions, impulsive actions, irrelevant laughter, stereotypy of speech and movement (continuous repetition), negativism, et cetera. It is the most common psychosis which begins in young maturity, between the eighteenth and twenty-fifth years. Prophylaxis, at the first symptom (of indifference or negativism) is the best treatment."

To shake our conceit that there is no more advanced medical practice than that carried out in this country, the two recent advances in treatment have both been of European origin. The *insulin shock treatment* has been reported in these pages, and is even now being carried on in general hospitals by internists and general practitioners. Results, especially in more recent cases, have been amazing.

Meduna introduced the irritative therapy of schizophrenia two years ago². Briefly, it consists of intramuscular injections of camphor over a period of from one to three weeks, during which time convulsions and confusion often occur, followed by the intravenous injection of Metrazol on alternate days until twenty-five grand mal reactions have occurred. Contraindications are: (1) Evidence of cardiovascular disease; (2) acute febrile infections; (3) menstruation; (4) abnormal laboratory findings; (5) a history of head trauma with subsequent unconsciousness.

Friedman³ reports a number of apparent cures following this type of therapy. He makes the significant comment that, during the injections, the patients state that they "will behave themselves" if the treatment is stopped. Does the mental irritation set up force the patient to recognize his environment emotionally? It is suggested that dementia precox⁴ is a correlate of sluggishness of general body metabolism, and that there may be a physiologic barrier to cer-

1.—Church, Archibald, and Peterson, F.: "Nervous and Mental Diseases." 9th ed., Phila.: W. B. Saunders Co. 1929.

2.—Meduna, L. V.: *Ztschr. f. d. ges. Neurol. u. Psychiat.*: 152-235, 1935.

3.—Friedman, E.: *Schizophrenia. N.Y.S.J.M.*, 37: 1813 (Nov. 1), 1937.

4.—Friedman, E.: *Schizophrenia. A.J. Psych.*, Sept., 1937.

tain associative pathways, which tends to become more impenetrable as the disease progresses. Stimulation or irritation of the whole central nervous system might allow these barriers to be broken through, allowing proper thought processes to emerge and the carrying out of thought-volitional-motor activities.

All physicians, and those persons associated with these patients, will be inspired with new hope. Incidentally, in this time of strife in the medical world, they will again feel proud to be members of the grand profession.

R. L. GORRELL, M.D.

Clarion, Ia.

State Medicine is poorhouse medicine.
Tell your patients.

Dirt*

NATURE is clean!

When one goes into the virgin forest one need not fear to drink the natural water. The air is fresh and pure; the ground is clean; everything is chaste and beautiful; there is no danger of soiling one's clothes, or his hands, or his soul; the odors which greet one's nostrils are the sweet perfume of flower and pine; the coats of the wild animals and birds are sleek and glossy, their mouths though innocent of a tooth brush, are clean, and their bodies are supple and trim.

Then comes into this setting imperial man, man made in the image of God, man the idealist, *man the dirty*. Indeed it is literally true that by far the dirtiest of all animals is not the hog, but man. Hogs are cleanly in their habits when living in a state of nature, and are dirty only when confined in a man-made pen.

The trail of man is marked, and well marked, by tin cans, scraps of paper, remnants of wasted food, garbage, ugly camp sites, fecal deposits, flies, and other disgusting reminders of civilization. Primitive man must move his camp at frequent intervals to avoid his own filth, and allow nature to clean up after him. Civilized man rapidly soils his vacation camp sites in spite of laws, forest rangers, notices, pleadings, and especially the cleansing action of nature for nine months in the year.

As man begins to attach himself to the soil he builds a house, shutting out the fresh, pure air, and the cleansing sun and rain. In his back yard he digs two holes, from one of which he takes his drinking water and into the other, conveniently near, he deposits his excrement. The manure pile, the pig pen, the chicken yard, the swill

barrel, and the privy are but a few steps from his doorway.

As he comes to live in large cities, conditions become even worse. He takes his drinking water from and returns his sewage (often unaltered) into the same stream. Other cities above and below do the same. He pollutes the air with smoke, and with a thousand and one other noxious gases, odors, and fumes. Sputum and the excrement of horses dry on the sidewalks and streets, and then blow into our faces and mouths. Grass dies; birds leave (except the filthy English sparrow); trees die; flies, roaches, vermin, and rats swarm. Alleys lined with dirty outbuildings are filled with garbage cans running over. The divine symphony of nature is replaced by the din of clash and clang and rattle, of horn and bell, of oath and obscenity.

Man is the only animal that spits. Sputum is his most used medium of exchange. We swap saliva with all comers. It is on our hands, our faces, our clothes, our books, our streets, the floor, the wall—everywhere. If it were blue, everything would be stained a deep azure to the average level of the mouth.

Dirty mouths, dirty hands, dirty bodies, dirty clothes, dirty houses, dirty beds, dirty food, dirty water, dirty milk, dirty air, dirty streets, dirty language, dirty thoughts, dirty politics. Dirt, dirt, ugly dirt, disgusting dirt, *dirty dirt!* There is constantly waged the battle of decency versus dirt, with decency only recently taking its present stand. It is not long since St. Simon Stylites was regarded as a holy saint—a dirty saint to be sure, but all the more holy because he was dirty.

Do we need to be dirty? Is dirtiness an unchangeable characteristic of the human species? Certainly not! Then why *are* we dirty? Do we like it so, or are we too lazy to clean up, or is it ignorance that is the reason? Let us believe that it is indifference. It is this belief that has prompted the writing of this unpleasant article. Let us call dirt *dirt*, in the Anglo-Saxon sense—filth, excrement, disgusting, stinking dirt—and then let's make an effort to clean it up.

What a price we have paid for being dirty! Typhoid fever, dysentery, cholera, summer complaint of children, and other conditions are due to the fact that human beings eat human excrement. No one gets typhoid except by getting into his mouth material from another person's bowel. Tuberculosis, scarlet fever, diphtheria, measles, whooping cough, colds, pneumonia, etc., are acquired by getting someone else's saliva into our mouths and noses. Venereal disease comes only through contact with diseased, disgustingly diseased, persons.

*Reprinted from *Bul. Ind. St. Bd. of Health*.

Be clean and these diseases and many other distressing conditions will disappear. Clean hands, clean clothes, clean bodies, clean mouths, clean bowels, clean food, clean milk, clean water, clean homes, clean schools, clean stores and eating places, clean streets and alleys, clean air, clean books, clean drama and movie, clean politics, clean thoughts, clean morals, clean lives. Cleanliness IS Godliness! Almost the entire program of the prevention of disease—and it is producing astonishing results—is that of cleanliness.

We are making progress. Everyone of middle age (and many that are younger) remembers the days when flies swarmed far worse than they do now. I was taught at school that it was a sin to kill a fly. Remember the beslobbered drinking cup of yore, the grimy, clammy, roller towel, the slates and slate rags of pungent memory, the chewing gum swapped at recess? Bathrooms, toothbrushes, purified water, clean milk, government inspection of food, sanitary disposal of garbage and sewage, etc., etc., are new things. Indeed, the first bathtub in the United States was made in Cincinnati and installed in a house in that city in 1842. It was made of wood lined with sheet lead, and its proud owner exhibited it to his guests at a party. Doubtless his guests were shocked. The next day the papers denounced the new contrivance in round terms, as being an evidence of decadence, a luxurious and undemocratic vanity! Oh, times! oh, customs! The world sure enough was going to the bow-wows. Solemnly the medical profession denounced it as a menace to health. Boston, in the "effete East," the "land of the bean and the cod"; Boston, the home of culture and refinement, in 1845 made *bathing unlawful*, except when prescribed by a physician. Aristocratic Virginia, all wrought up by this encroachment of the sacred precincts of dirt, placed a prohibitive tax of \$30.00 per year upon this pernicious innovation, the humble bathtub.

Enough! Someday we shall learn; someday we shall laugh—laugh loud and long—at our present methods, as we now laugh at those of the past. We shall wonder why, and especially *how*, we ever endured such things as we now may think are necessary. We shall be clean; we *will* be clean; we **MUST** be clean.

We're on our way. Yeh, let's go!

THURMAN B. RICE, M.D.

Indianapolis, Ind.

I certainly do want a renewal of CLINICAL MEDICINE AND SURGERY. Have enjoyed it more than any other magazine.—M.G., R.N., Massachusetts.

Treatment of Burns in Children

THE immediate treatment of burns consists of: (1) Warmth; (2) sedatives and cardiac stimulants, if indicated; (3) intravenous saline and dextrose administration (if the burn covers a large area); and (4) cleansing of the burned area, under nitrous oxide and ether anesthesia, with sponges soaked in green soap and hydrogen peroxide. Superficial dead skin is removed and blisters are broken, so that a surgically sterile wound is produced.

Sponges wet with 5-percent tannic acid solution are daubed on the wound until the whole area is lightly tanned. This procedure is immediately followed by the application of 10-percent silver nitrate, which results in the formation of a thin, pliable eschar within a few minutes. Within a few hours, the crust is dry and solid, thus preventing the loss of large amounts of body fluids.

Treatment of unhealed burns: Excessive granulation tissue must be scraped off with a sharp knife until the clean, even, fibrous base is reached (this procedure can be carried out with no resultant pain). If the granulation tissue is red and clean, pressure dressings may be used over cod-liver oil ointments, or zinc oxide or ammoniated mercury ointment. When the granulations are sluggish, gray, and chronically infected, a wet antiseptic dressing of boric acid, hexyl-resorcinol, hypertonic saline, or Dakin's solution is employed. A covering of wide-meshed, paraffined gauze is first applied directly over the granulations, so that dressings may be carried out daily without disturbing the patient.

If the granulations cover a large area, it is not possible to keep them burned down or scraped evenly to allow healing from the periphery, and skin grafting should be employed to prevent scar formation.—D. W. MACCOLLUM, M.D., in *Am. J. Surg.*, Feb., 1938.

Indications for Thyroid Therapy in Children

EXTREME motor restlessness, destructiveness, and speech disturbances are the outstanding symptoms of a syndrome, the etiologic factor of which is hypothyroidism. The child is so careless with his possessions that he may need to be restrained. The most usual complaint for which he is brought to the physician, however, is some form of speech involvement, that may range from inability to pronounce certain letters to speech blocking and even complete inability to speak. Thyroid extract should be

administered in the usual-size doses for the age of the child, over a prolonged period of time.

Treatment with thyroid extract is also often necessary in the fat, hypogonadal children (Froelich's Syndrome).—L. A. LURIE, M.D., in *J. A. M. A.*, May 7, 1938.

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Repair of Flexor Tendons of the Fingers*

GOOD SURGERY OF THE HAND can be done only in a bloodless field, and the most satisfactory tourniquet is a blood pressure cuff, which should be inflated to 250 mm. of mercury, and left undisturbed for one hour, at the end of which time it should be removed. After washing with soap and water and applying half-strength tincture of iodine, the wound should be carefully and completely cleaned of foreign matter and devitalized tissue by sharp dissection. It is better, when cleaning the wound, to risk cutting normal tissue than to leave doubtful material which might serve as a source of infection.

It may be possible to join the cut ends of nerves or tendons with one chromic suture in each, but catgut in any considerable quantity should be avoided. Silk should not be used in primary tendon repair because, if infection develops subsequently, it will persist until all the silk has sloughed from the wound. The wound should be closed *without drainage*, and the arm immobilized and elevated. If the wound is protected by a wire cage, there will be no trauma in the daily dressing.

If no infection follows, tendon repair may be performed in ten days. Successful tendon repair cannot be done in the presence of infection, so infection interdicts repair for four months, until tissue immunity is at its optimum.

Reconstructive flexor tendon surgery requires meticulous attention to all details, or failure will result. Twenty-four hours before the operation the hand and forearm are shaved, scrubbed with soap and water, and the nails carefully cleaned. An alcohol dressing is then applied, and repeated the following day. If a tendon transplant is to be made, the part from which the graft is to be taken should be prepared in the same way.

In the surgery, the hand and arm are elevated and an Esmarch bandage wrapped

tightly over the preliminary dressing, from the fingers to the elbow, in order to remove all possible blood. If the field is ischemic, sensory nerves can be isolated, sutures can be applied more rapidly and accurately, and trauma from sponging delicate tendon sheaths is avoided. With the arm still elevated, a blood pressure cuff is applied and inflated to 250 mm., followed by removal of Esmarch bandage and dressing. The field is painted with iodine, and surgery begun at once, as the blood pressure cuff must be removed in an hour, and as much work as possible should be done during that time.

The incision should not be made on the flexor surface of the finger, because it leaves a sensitive scar and causes cicatricial deformity; also it will cut the transverse fascial bands through which the tendon glides, and leave the so-called bow-string finger. With but few exceptions incisions should be made on the lateral surfaces of fingers at the joints and midway between the dorsal and volar surfaces. This will avoid cutting motor and sensory nerves. When sensation is lost, cuts and burns are frequent, trophic changes result, the finger becomes cold and its skin shiny. If the lateral incision does not give desired exposure, it may be extended across the volar surface of the finger in the flexor crease.

Flexion is notoriously impaired, following suture of flexor tendons in the fingers, because they glide in tunnels just large enough to accommodate them. If sutures are placed in a tendon, adhesions will result. A laceration distal to the middle joint of the finger will sever only the profundus tendon, whereas one proximal will sever the sublimis first and then the profundus. *In any case of several tendons, the sublimis tendon is removed from the palm to its insertion.* If it only is severed, the newly-cut free end in the palm should be attached to the profundus. This removal prevents the sublimis from growing to the profundus and acting as a check rein.

If the profundus tendon has been severed, it is necessary to remove the sublimis in order to insert a tendon graft to replace the damaged portion of the profundus. One end of a tendon is sutured to the newly cut profundus tendon in the palm, then the free end of the graft is pulled through the flexor tunnel in the finger and attached to the stub of the profundus tendon at the distal phalanx. The length of the transplant, is important because there must be a small amount of tension. Deknetel silk sutures give good results, and should be placed so that the knot, on tying, lies between the tendon ends.

Passive motion is begun one week after operation, with the fingers maintained in a

**Northw. Med.*, Aug., 1937.

position of semiflexion by a dorsal plaster splint. After two weeks, slight active motion is begun, and gradually increased so that physiologic tendon healing is complete in six weeks.

H. H. THATCHER, M.D.

Portland, Oregon.

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Life-Saving Treatment of Generalized Peritonitis

THE MOST important death-producing factor in peritonitis is the mechanical effect of intestinal obstruction. The patient may vomit from 300 to 3,000 cc. of intestinal fluids each day. If the obstruction can be relieved, the patient will often live.

Handley's surgical treatment: Perform an upper-left-rectus incision, pick up the most accessible loop of the transverse colon and unite it to the jejunum by lateral anastomosis, then suture the incision. Make a second incision over the ascending colon, insert a Pezzer catheter into it, and close the incision. Regurgitant vomiting is thus prevented. This procedure has saved the lives of several patients suffering from generalized peritonitis, with much distension, persistent vomiting, fever, and tachycardia, which would otherwise have been fatal.—CHAS. GORDON HEYD, M.D., in *South. Surg.*, April, 1938.

"Hot-Weather Ear"

"HOT-WEATHER EAR," or otitis externa, is found chiefly in warmer climates (Egypt, southern United States, Australia) and is associated with a *B. pyocyaneus* infection. During the acute stage, the symptoms are: pain in the ear, often of a throbbing character, some discharge, and fever (100° to 103°F.). Examination discloses a swollen meatus, whose walls are covered by a white, curdy-appearing membrane, partial loss of hearing, and tenderness on movement of the auricle. Usually the drum cannot be visualized unless the patient is under an anesthetic, although when examined it appears practically normal.

Treatment: The meatus is gently syringed with boric acid solution, which is heated as hot as the patient will tolerate. The ear is then allowed to drain by posture. One-percent phenol-glycerin solution is instilled into the meatus and a hot boric fomentation applied over the ear, neck, and cheek. Usually no incision is necessary, as localized suppuration rarely occurs.

Subacute otitis externa: The canal is cleared of debris and dried with ether or boric-alcohol drops. The patient inclines his head to bring the affected ear uppermost, and a small quantity of boro-iodine powder is dropped into the meatus and insufflated into all parts of the canal. The meatus is then quickly filled with the powder and plugged with cotton. This dressing is left undisturbed for 48 hours. At the conclusion of this time, the ear is gently syringed (the great majority of the powder has dissolved by this time) with boric acid solution and the meatus is filled with boric acid-alcohol drops for a few minutes, which is then drained by posture. The drops are repeated twice daily for two days, and the powder treatment repeated if necessary. The patient is instructed to use boric acid-alcohol drops, at night, during the remainder of the hot weather.—G. MORLEY, F.R.C.S., in *Br. M. J.*, Feb. 19, 1938.

Protamine Zinc Insulin*

TEMPORARY FLUCTUATIONS of considerable size may occur in the sugar content of the blood, owing to excitement, pain, fear, or other emotional cause. The most frequent variation from the normal appears following carbohydrate ingestion.

The twenty-four hour blood-sugar curve should be relatively constant, and may thus be used as a measuring stick to determine the efficacy of our treatment, although it is not necessary in the great majority of patients now. Suitable application of protamine zinc insulin, with the possible addition of a small dose of unmodified insulin to compensate for the breakfast, makes possible normal blood-sugar levels in diabetics. Occasionally it is necessary to give the supper *later* in the evening, to avoid the dangers of hypoglycemia during the early part of the night.

The patient feels better while taking protamine zinc insulin, which may be due to the smoothing out of the insulin effect, relief of the morning ketonemia (as a result of the larger carbohydrate meals that can be taken at night) or, as Wilder suggests, due to the prevention of intermittent periods of azoturia consequent on protein breakdown.

Technic: The diet should be fairly low in carbohydrate, with the breakfast lowest and supper highest, as the action of the protamine zinc insulin is strongest then. Give the dose *one and one-half hours before breakfast*; that will produce a low normal blood sugar the following morning.

*N. Y. S. J. M., Nov. 1, 1937.

Hypoglycemia: The patient should always carry candy with him, and take some, if he feels slow-witted, dull, sleepy, fatigued, or otherwise abnormal, every 30 minutes, followed by bread and honey or milk, for prolonged relief.

WALTER R. CAMPBELL, M.D., F.R.C.P.
Toronto, Canada.

Dosage of Sulfanilamide

The oral dose of sulfanilamide for each twenty-four hours is shown below:

Age	Mild Infections	Severe Infections
Infants, up to 40 pounds.	15 to 25 gr.	30 to 50 gr.
Children, 40 to 80 pounds.	35 to 45 gr.	70 to 90 gr.
Children, 80 to 120 pounds.	50 to 60 gr.	100 to 120 gr.
Adults.	60 to 80 gr.	120 to 160 gr.

To prevent acidosis, which this drug tends to produce, it is recommended to administer 1 grain of sodium bicarbonate with each grain of sulfanilamide, but not to exceed 10 grains of bicarbonate at any one administration.—CECIL C. JONES, M.D., in *J. Iowa S.M.S.*, April, 1938.

The Treatment of Hay Fever

HAY FEVER vaccine (allergen) may be administered if it has not been employed previously in the same case. If it has been administered for three years without success, it is useless to continue.

Allergists report a very high percentage of cures following the injection of such vaccines. Rhinologists have been unable to confirm these reports. The fact that immunization therapy generally has gained in scientific prestige makes one reluctant to speak negatively of its progress in hay fever, but is it a true immunization method in this disease?—E. E. N. T. M., May, 1938.

How to Catheterize the Prostatic Patient

THE FIRST approach in catheterizing a prostatic patient should be with a small, new, fairly firm, soft-rubber catheter, which has been thoroughly lubricated. Some of the newer catheters, with a Coudé curve at the tip, are very good. A little steady pressure will often be rewarded with success. Additional pressure will do no good.

If the rubber catheter fails, the next thing to try is the Philip's whip, which is a small, solid but limber bougie. If one succeeds in passing this into the bladder, it is a simple matter to attach the following catheter, which readily follows the bougie into the bladder. If this fails, one should

try a silk elastic catheter, preferably one with a prostatic curve.

Do not use a metal catheter, as all urologists see the disastrous consequences that follow their use. It is safer to refer the patient to a urologist, or to use a suprapubic trocar, which should be introduced at a point in the midline, about $\frac{1}{4}$ inch above the pubis (the area should be definitely dull or flat on percussion); a catheter is then threaded through the cannula, after removal of the trocar, and anchored to the skin with a silk suture. A few days later, after the acute congestion has subsided, it is usually a simple matter to pass a soft-rubber catheter through the urethra.

After a catheter has entered the bladder, by either route, withdraw not more than 16 ounces, then clamp it, and evacuate one or two ounces every hour.—N. P. RATHBUN, M.D., in *Urol. & Cutan. Rev.*, Aug., 1937.

Aminophyllin in Cardiac Edema

IN CASES of cardiac edema, aminophyllin (Metaphyllin, Theamin, Theophylline, etc.) is one of the most effective diuretics. It increases very strikingly the blood flow through the coronary arteries (thus being of value in chronic heart disease, especially of coronary origin) and through the glomerular tuft of the renal unit. For maximum benefit, the tablets must be dissolved in water, which often requires 30 minutes. Two tablets of 1½ gr. (0.1 Gm.) each are given every three hours for three doses, and repeated in 24 hours, if needed. Rectal suppositories (5 gr. or 0.36 Gm. each) are inserted every six hours for three doses during each twenty-four hour period. If diuresis is needed promptly, give a 7½ grain 2 cc. ampule (dissolved in 20 cc. of saline solution), intravenously.—G. R. HERRMANN, M.D., in "Diseases of the Heart" (C. V. Mosby Co., St. Louis).

Needless Thyroid Surgery*

CHARLES MAYO has said, "Hyperthyroidism is never an indication for emergency surgery." Plummer used to say that if a patient is losing weight but has a good appetite, hyperthyroidism should be thought of; but if the weight remains stationary, and the appetite poor, neurasthenia is more likely.

In toxic adenoma, both systolic and dias-

W. J. S. G. & O., Aug., 1937.

tolic blood pressures are elevated. Heart palpitation; a moist, warm skin; prominence of the eyes; tremor of the fingers; nervousness, and a fullness of the neck, do not necessarily indicate toxic goiter. In fact, these symptoms and a sense of constriction in the neck are characteristic of nervous exhaustion.

Exophthalmic goiter should be suspected when examination of the neck reveals thrill and bruit. *Do not allow the basal metabolic test to sway your judgment* (obsolete machines, frequency of leaks, errors of technicians, patients' excitement, use of a nose clip instead of a face mask, exercise, or a "cold" will all result in false readings).

All of the 100 cases listed below were advised to have thyroidectomies performed. None of them needed it.

Nervous exhaustion	45
Physical exhaustion	21
Menopause	15
Colloid goiter	6
Miscellaneous	5
Septic tonsils	5
Psychosis	3

100

The tenseness of school teachers, stenographers, women at the menopause, and executives, intensified by long hours of duty, stimulants (coffee, nicotine), and by lack of rest, relaxation, and vacations, may produce symptoms of hyperthyroidism. What so many of them need is not the removal of a part of their gland, but a change in environment and mode of life.

If more women undergoing the menopause were given the proper medical treatment; if the excessive use of stimulants were curtailed; if more periods of rest and outdoor living were followed, fewer persons would be subjected to needless thyroid surgery. I have operated upon goiter patients who had previously undergone thyroidectomy once, twice, or even thrice, by excellent surgeons. Usually the all-important factor of post-operative care has not been stressed, and these patients have drifted back into the same life which predisposed to their original goiters.

A. S. JACKSON, M.D.

Madison, Wisconsin.

Nose and Throat Infections

PATIENTS with nose and throat infections should be *treated in bed*. Fatigue of body and mind is a cause of these conditions. Vigorous local treatment of the nose and throat causes irritation and may make the conditions worse. No surgery in the nose (including drainage of the antrums) should

be attempted for 3 or 4 weeks after the first symptoms — and then it will rarely be necessary. Give salicylates and codeine for comfort; but *no laxatives*. Conserve the patient's resources of energy and teach him to live intelligently.—ARLIE V. BOCK, M.D., of Harvard University, Boston, before Am. Coll. of Phys., Apr. 6, 1938.

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The Seminar

Continued from page 332

sore throat, which was succeeded, in 24 hours, by a non-localized, rather painful headache. Two days later the left cheek appeared swollen and "purple." The patient had difficulty in perceiving objects. Within 48 hours, the swelling disappeared. Pain was then complained of in the left ear, from which a bloody discharge soon appeared, gradually becoming brown in color. For the past four days, consciousness had gradually been fading away, until her relatives were not sure that she perceived anything except the coarse stimuli of pain.

Physical examination: Pulse, 100; blood pressure, 136/92; temperature, 98.6°F. (axillary); respiration, 24. Her pupils reacted to light; the turbinates were moderately engorged and a sticky, mucoid secretion was present; a continuous flow of thick, yellow pus was observed on the posterior pharyngeal wall; no thyroid enlargement was palpable; the heart was not enlarged and was beating regularly and strongly; the abdomen was somewhat distended and tympanitic, but did not show any tenderness or rigidity.

The left ear was draining a thick, brownish material and the drum could not be seen. Transillumination showed both maxillary sinuses dark, and the frontals fairly clear, but of indefinite outlines.

Neck rigidity (grade 2) was present, but there was no ankle clonus nor Kernig's sign. The Babinski sign was questionable on both sides. The knee-jerks were both two plus.

The physician who had been taking care of her previously had left town, so that details of her previous condition or treatment could not be ascertained.

Requirements: Suggest diagnosis and treatment, *giving reasons*. What further examination would you have made?

Diagnostic Pointers



Diagnosis of Peptic Ulcer

THE indigestion of gastroduodenal ulceration is a chronic condition, characterized by four outstanding features: (1) It is tolerated without great distress; (2) it bears a relationship to the ingestion of food; (3) it is cyclic in character, recurring day after day with the same precision; and (4) the chronicity and the repetitious character of the complaint are present in the history of most patients. It is the regularity and cyclic recurrence of the symptoms in ulcer that render this diagnosis relatively easy by an analysis of the clinical history.—CHARLES GORDON HEYD, M.D., in *Am. J.S.*, Jan., 1938.

Obscure Abdominal Symptoms

GIVEN a case of obscure abdominal symptoms, with or without pus, blood, or mucus in the stools, we should be on the alert to rule out the ameba as a possible cause.—MILLS STURTEVANT, M.D., in *Med. World*, Oct., 1937.

Spinal Puncture in Syphilis

IN EARLY SYPHILIS, the time for spinal fluid examination is at about the sixth month of treatment. All latent syphilitics should have a spinal fluid examination at once, and should it be negative, it will probably remain so. *Changes occur in the spinal fluid months and even years before subjective symptoms and objective signs appear.*—GEORGE W. CRESWELL, M. D., in *Med. Ann. Dist. Col.*, July, 1937.

Foot Complaints

COLDNESS of the feet, numbness and tingling in the toes, early fatigue of the feet, pain on exercise, and night pain, in individuals over 35 years of age, may be due to narrowing of the terminal arteries of the feet rather than to "neuritis," "arthritis," or "fallen arches." Although arteriosclerotic disease of the lower extremities is the commonest of all obliterative vascular dis-

eases, it is often overlooked until gangrene appears. *Then the patient pays for the neglect with his limb, if not his life.*—J. ROSS VEAL, M.D., F.A.C.S., in *South. M.J.*, Jan., 1938.

Unusual "Abscesses"

IF AN ABSCESS doesn't respond to heat or incision, think of a syphilitic lesion.—W. M. BRICKNER, M.D., in "1000 Surgical Suggestions."

Never incise blindly into a mass, as redness, tenderness, swelling, leukocytosis, and fever may be associated, yet the mass may be a hematoma from a ruptured or arteriosclerotic artery. Death followed the free incision of a "paranephritic abscess" in an elderly man, whose atheromatous aorta had become aneurysmal. Aspiration is the safe course.—E. LONG, M.D., in *Internat. J. Med. & Surg.*, July, 1935.

Vitamin A Deficiency

VITAMIN A deficiency is manifested early by susceptibility of the skin to boils, sores, impetigo, napkin rash; ocular symptoms are redness of the eyes with lacrimation, perhaps blepharitis, and mild inflammation of the meibomian glands.—L. H. LANIER, M.D., in *E. E. N. T. Monthly*, Oct., 1937.

Errors in Diagnosis

IT IS A STATISTICAL FACT that just about as many patients with carcinoma of the right half of the colon are operated upon for chronic appendicitis and chronic cholecystitis, as patients with carcinoma of the rectum are operated upon for hemorrhoids.—N. Y. *S. J. M.*, Feb. 1, 1938.

Heart Disease

NEVER TREAT a cardiac patient on stethoscopic evidence only. The heart may be a bad musical instrument, and yet a good force-pump. However noisy the first sound

may be at the base of the heart, if the apex be in the right place, if there be no signs of hypertrophy, no anemia, if the pulse be good, and above all, if the patient does his work well, we have nothing to treat.—J. HUGHINGS JACKSON, in "Sutton's Physical Diagnosis" (C. V. Mosby Co.)

Disorders of Menstruation

IN A MUCH larger proportion of cases than is commonly believed, amenorrhea or oligomenorrhea is the result of endocrine, rather than pelvic disorders. This is in contrast with the etiology of excessive menstruation, which is to be sought in local pelvic disease more frequently than in constitutional causes, endocrine or otherwise.—WALTER TIMME, M.D., in Cecil's "Textbook of Medicine" (W. B. Saunders Co.), 1937.

Dangers of Cesarean Section

CESAREAN section is the operative procedure accompanying a high percentage of obstetric deaths. When performed by the occasional operator, such avoidable complications as failure of control of operative hemorrhage, sepsis, and peritonitis result in many fatalities. Today, the large numbers of cesarean sections performed for slight indications, on women in good condition, have reduced the rate of deaths over a large series, and covered up the fact that one patient in four or five will die when she is in poor condition.—W. B. THOMPSON, M.D., in W. J. S. G. & O., Jan., 1938.

Appendicitis

THERE are very few abdominal conditions that arise in as precise a manner as appendicitis, and it is well to remember that the sudden onset of acute, cramp-like abdominal pain is the first and most important symptom.—CHARLES GORDON HEYD, M.D., in Am. J. S., Jan., 1938.

Kidney Injury

HEMATURIA is the most characteristic symptom of renal injury. In a few cases it is not present or its presence is not discovered early because of the inhibition of renal function that sometimes accompanies the injury.—"Modern Urology" Edited by H. H. Campbell, M.D. (W. B. Saunders Co.)

Fever Is Not Injurious

FEVER IS A PROCESS which aids in the elimination or destruction of injurious substances which gain access to the body. It results in an increase in leukocytes and basal metabolism and an increased outpouring of plasmatocytes that increase resistance to infection, in the blood, lymph, and all tissues of the body. As hyperpyrexia treatments become more common, the still-too-common habit of "lowering fever" will be forgotten.—F. H. REDEWILL, M.D., in Urol. & Cut. Rev., Apr., 1937.

Iodine Response As a Prognostic Sign in Hyperthyroidism

A LARGE percentage of the present-day mortality following thyroidectomies comes from a comparatively small group of patients (3.5 percent), who do not respond to iodine. This is especially true of elderly patients, those with nodular goiters, and those presenting evidence of heart disease.—J. LERMAN, M.D., in W. J. S. G. & O., Aug., 1937.

The Argyll-Robertson Pupil Is Not Pathognomonic of Syphilis

EIGHTY (80) percent of cases presenting a fixed pupil are syphilitic; the remaining 20 percent are not. Areflexia of the pupil may be due to diphtheria, encephalitis, alcoholism, diabetes, injuries to the brain or ocular tract, or may be a sign of primary pupillary areflexia, which is a disease sui generis.—H. BURKI, M.D., in Schweiz. Med. Wchnschr., Aug. 21, 1937.

Fibroadenoma of the Breast

THE FIBROADENOMA is the most common tumor of the breast occurring in young women in the child-bearing period. The firm character of the lesion, the definite encapsulation, and the slow growth over a period of years make the clinical diagnosis relatively easy. These growths enlarge rapidly during pregnancy and undergo cystic degeneration during lactation, due to sex hormones.—C. F. GESCHICKTER, M.D., and DEAN J. LITTLE, M.D., in J. Clin. Invest., 1938.

Thumbnail Therapeutics

★

Ice Applied before Injections

IN PATIENTS who are apprehensive about parenteral injections, a cube of ice, wrapped in sterile gauze soaked in an antiseptic solution and held firmly upon the skin at the point of puncture for two minutes, will give adequate local anesthesia.—A. W. BORTIN, M.D., in *Med. Times*, Sept., 1937.

Nonsurgical Treatment of Prostatism

AT THE PRESENT TIME, there are two brilliant but opposing theories before the profession in regard to the nature of the hormonal change that leads to prostatic hypertrophy. Zuckerman believes that prostatism should be treated with large injections of male sex hormone. Lower's experiments would indicate that inhibin should be injected and that the male sex hormone is absolutely contraindicated. Widespread clinical application must await further reports from laboratory workers.—C. A. SMITH, M.D., in *Northw. Med.*, Sept., 1937.

Benzedrine in Seasickness

IN 39 percent of patients suffering with seasickness, prompt and positive relief followed doses of from 10 to 20 mg. of Benzedrine Sulfate; while in another 40 percent there was some relief. In certain cases, better results are obtained by combining belladonna and sedatives (bromides; barbiturates) with it.—JOHN HILL, M.D., in *Brit. M. J.*, Dec. 4, 1937.

Nicotinic Acid in Pellagra

CLINICAL EXPERIMENTS suggest that the inflammatory symptoms in the mucous membranes and early skin lesions, in cases of pellagra, can be promptly controlled by nicotinic acid, given in doses of 100 mg. five times a day, even though the patient is still on a pellagra-producing diet. It may be found that smaller doses will suffice.

The drug is cheap and easy to administer.—TOM D. SPIES, M.D., *et al*, in *J.A.M.A.*, Feb. 26, 1938.

Treatment of Amebiasis

FROM 22.5 to 30 grains of Diodoquin (dihydroxyquinoline) daily will cause the disappearance of amebas from the stools within sixteen days. The drug is practically nontoxic, with headache being the only symptom resulting from its administration.—D. N. SILVERMAN, M.D., F.A.C.P., in *Am. J. Dig. Dis. & Nutr.*, July, 1937.

Removal of Wax from Ear

IMPACTED CERUMEN may be easily removed from the external auditory canal by instilling four drops of hydrogen peroxide, followed five minutes later by thorough syringing with weak boric acid solution.—W. M. BRICKNER, M.D., in "1000 Surgical Suggestions" (Surgical Publishing Co.).

Tetanus Antitoxin after Street Wounds

A NUMBER OF STRAINS of tetanus bacilli can be isolated from the street dust of either commercial or residential districts. The majority of these are definitely toxic. Every laceration or abrasion that contains street dust is an indication for tetanus antitoxin.—ERIC C. GILLES, M.D., in *J.A.M.A.*, Aug. 14, 1937.

Itching in Ear

PURITUS after the use of ear drops or oil, plus a sensation of fullness in the canal, calls for otoscopic examination. If a brown, yellow, or black discharge is found, which has a sweet, sickening odor, it is caused by fungous infection and should be treated by cleaning with alcohol-soaked cotton applicators and painting every three days with silver nitrate solution (5- to 10-percent), or with a germicidal tincture.—F. L. BRYANT, M.D., in *Jour.-Lancet*, June, 1937.

Aminophyllin in Severe Asthma

THE intravenous injection of aminophyllin stops cardiac pain and relieves urgent dyspnea, as well as Cheyne-Stokes' breathing (in cardiac disease), and the difficult breathing of severe or persistent asthma. The drug is administered in doses of $3\frac{1}{4}$ to $7\frac{1}{2}$ grains (0.24 to 0.48 Gm.), diluted to 10 cc. with physiologic saline or dextrose solution, by the intravenous route.—G. HERRMANN, M.D., and M. B. AYNESWORTH, M.D., in *J. Lab. & Clin. Med.*, Nov., 1937.

Pleurisy in Pneumothorax

PLEURISY with effusion is the most common and potentially dangerous complication of pneumothorax therapy in tuberculosis. The introduction of oil into the pleural cavity is of great value in treating this complication, after removal of much of the effusion.—C. A. SMOLT, M.D., in *Diseases of the Chest*, Jan., 1938.

"Bloodless" Cesarean Section

CESAREAN SECTION may be made a faster, easier, less bloody and shocking operation, by infiltrating the line of uterine incision with five ampules of obstetric Pituitrin solution. The incision into the uterus is thus made through a temporarily anemic area, control of bleeding is simplified, and the placing of sutures rendered more accurate.—R. L. GORRELL, M.D., and F. L. WILSON, M.D., F.A.C.S., in *Am. J. S.*, Jan., 1938.

Treatment of Gonorrhea

CHRONIC GONORRHEA may be treated by means of an ointment which is deposited in the bulbous urethra through a hollow tube and mandarin. The ointment employed is two-percent nitric acid, in a mixture of lanolin and vaseline in equal parts. After this salve has been deposited, a sound is passed into the bladder. An ointment of this strength is not irritating. The treatments are begun within six or eight weeks after the onset of gonorrhea. There have never been any complications. All my cases have been cured after from eight to twelve such treatments.—A. POEHLMAN, M.D., in *Munch. med. Wchnschr.*, Sept. 3, 1937.

Morning Apathy

SMALL DOSES (5 to 15 mg.) of Benzedrine Sulfate have been found to be of value in dispelling morning apathy and depression in certain mild depressive neuroses.—A. MYERSON, M.D., in *Arch. Neur. & Psych.*, 36:816, 1936.

Coramine Counteracts Barbiturate Effects

A CLINICAL STUDY indicates that the effects of overdoses of barbituric acid compounds can be safely relieved by Coramine. The drug is given intravenously in a dose of 5 cc., which is repeated every 10 minutes until the patient rouses from sleep. No unpleasant effects of the Coramine were noted in any case.—PURCELL G. SCHUBE, M.D., in *N. E. J. of M.*, May 7, 1936.

Oral Follicular Hormone Therapy of Vulvovaginitis

ADMINISTRATION of the ovarian follicular hormone, by mouth, gave good results in the treatment of vulvovaginitis (gonococcic) in children. The gonococci in the vagina disappeared, the effect of the hormone was localized to the vagina, the treatment was harmless, and the length of treatment time was materially shortened.—B. STREITMAN, M.D., in *Wien. Klin. Wchnschr.*, Aug. 27, 1937.

Vitamin C in Anemia

A DEFICIENCY in vitamin C may prevent hemoglobin formation, despite adequate iron intake. Anemic patients should take a well-balanced diet, including fruit juice or tomatoes, milk, meat or cheese, and cream or butter.—PAUL W. CLOUGH, M.D., in *South. M. J.*, Mar., 1937.

Treatment of Hydronephrosis

HYDRONEPHROSIS results from poor drainage of the kidney pelvis. Plastic surgery, such as removal of bands or vessels obstructing the ureter, may be necessary, but many cases can be cured by a high fixation of the kidney (nephropexy) without more radical procedures.—ROLAND G. SCHERER, M.D., in *Minn. Med.*, Feb., 1938.



THE DOCTOR'S STUDY

A good book is no respecter of class, or race, or national boundary, and its wide diffusion works for the spirit of true democracy.—“THE EDITOR.”

Young: Genital Abnormalities

GENITAL ABNORMALITIES, HERMAPHRODITISM & RELATED ADRENAL DISEASES. By Hugh Hampton Young, M.A., M.D., Sc.D., F.R.C.S.I., D.S.M., Professor of Urology, The Johns Hopkins University; Visiting Urologist, Brady Urological Institute, The Johns Hopkins Hospital. Baltimore: The Williams & Wilkins Co. 1937. Price, \$10.00.

There is probably no place in the world where so many cases of genital abnormalities are seen as at the Brady Urological Institute of Johns Hopkins Hospital, so Dr. Young, who has been at the head of that institution for years, has had an unprecedentedly wide field of observation. To this material he applied a deep and detailed knowledge of the anatomy of the urogenital system and a bold and vivid surgical imagination. He has also had a highly exceptional group of consultants, collaborators, and assistants, to all of whom he gives full credit for their labors. The result is a book which is unique, and probably will remain so.

Here the reader will find the most complete presentation of the fascinating subject of intersexuality, or hermaphroditism (the true, and both the male and female types of the false variety) and all more or less related genital abnormalities, that has ever been made available up to now, with complete reports of 55 such cases, including a full description of the conditions originally present (illustrated by photographs and drawings), with their embryologic, anatomic, pathologic endocrine, and psychologic backgrounds, and elaborate details of every step of the methods used (many of them entirely original) in their treatment.

New Books

Any book reviewed in these columns will be procured for our readers if the order, addressed to CLINICAL MEDICINE AND SURGERY, Waukegan, Ill., is accompanied by a check for the published price of the book.

Beginning with a splendidly written and highly absorbing chapter on Hermaphroditism in Literature and Art (with some very unusual illustrations), the text follows through with a discussion of the embryology of this condition and its several varieties. Others of the 22 chapters which fill the 680 pages of this volume, deal with the Adreno-Genital Syndrome; Hypo- and Hyper-genitalism; Hypospadias and Epispadias; Cryptorchidism; The Relation between the Genital Tract and the Endocrine Glands, etc.

The illustrations constitute a remarkable feature, as to both quantity (534) and quality. The well-known medical artist, William P. Didusch, stood at the author's side during all the remarkable operations recorded, and has given us a series of drawings which, for clinical clarity and technical perfection, have seldom, if ever, been equalled.

No physician has in his library any other book that covers the same field as this one, because there are no such. Every physician, from the embryologist and anatomist to the urologist, surgeon, and general clinician, will find the work of the deepest interest and of a high degree of practical clinical value.

Falk: Clinical Gynecology

PRACTICAL CLINICAL GYNECOLOGY. By Henry C. Falk, M.D., F.A.C.S., Clinical Professor of Gynecology, New York University College of Medicine; Director of Gynecology, Harlem Hospital; Gynecologist, French Hospital, New York City. New York: The American Journal of Surgery. 1938. Price, \$5.00.

Dr. Falk's most recent volume first appeared as a serial in the *American Journal of Surgery*, and was notable because of its

brevity, conciseness, and completeness. The normal and pathologic are defined clearly. For example, in discussing sterility, he says, "Sterility is the incapacity of a male and female, living a normal sex life, to initiate the reproductive process . . . since intercourse occurs at any time, without reference to the cyclic ovulatory changes in the female, some exposures take place in a relatively infertile period." Examination of the husband is stressed as a preliminary procedure before any extensive investigation of the wife is carried out. Full details are given for every step of the examination.

Throughout the book, modern gynecologic diagnosis and treatment is set forth in text and understandable illustrations. Office gynecology and treatment is brought up to date. Operative technic is fully discussed and step-by-step illustrations furnished.

Menstrual derangements, pathology of the ovary, ectopic pregnancy, carcinoma, endometriosis, surgical repair of the perineum, abortion, gonorrheal infection, fibroids, and retrodisplacements of the uterus are considered in other chapters. The illustrations on the course of abortion, possible routes of inflammation, and surgical approaches are worth the price of the volume. Complete details are given on examination of the patient, and pre- and post-operative routine. A better book on the subject for the general clinician cannot be found.

The Prescriber: Endocrinology Number

THE PRESCRIBER. *A Review of the Progress of Medical Science. Eighteenth Annual Endocrinology Number.* 65 Castle Street, Edinburgh 2, Scotland. Price, 4 s. 6 d., post free.

The *Prescriber* was founded some thirty-two years ago, and concerns itself with therapeutics and treatment.

This special number appears as a well-bound, attractive volume of 196 pages. A number of collaborating physicians have endeavored to cover the entire field of endocrinology (A. N. Macbeth, M.R.C.S., L.R.C.P., Lond.; M. Mautner, M.R.C.S., L.R.C.P., Lond.; David Orr, M.D., Edinburgh; Thomas Stephenson, D.Sc., F.R.S.E., Editor) and have managed to compress the recent advances into a surprisingly small amount of space.

Voronoff's clinical work with myxedematous patients, by implantation of thyroid grafts is reviewed. Mention is made of Dowden's observation that the initial basal metabolic rate is often elevated above the patient's true normal rate.

Wider therapeutic use of adrenal cortex therapy may be expected as milder or sub-clinical variants of Addison's disease are recognized (possibly by changes in blood electrolytes).

Apparently a great number of chemical compounds have some estrogenic action.

Zondek has detected a certain amount of estrogenic activity in mud removed from the bottom of the Dead Sea! Thus again, the interrelationship between the animate and inanimate is demonstrated.

The reviews are complete and thoroughly up to date. Every endocrine organ is discussed, including the placenta, the breast, the heart, the liver, the gastrointestinal tract, and the thymus (Hanson's name is not mentioned here). The general practitioner should put this book on his "must" list.

New International Clinics

THE NEW INTERNATIONAL CLINICS. *Edited by George Morris Piersol, M.D., Professor of Medicine, University of Pennsylvania Graduate School of Medicine, with the Collaboration of 18 Authorities. Volume I; New Series One (Old 48th). Philadelphia: J. B. Lippincott Company. 1938. Price, \$5.00 (current year).*

The International Clinics have long been a valuable record of contemporary medical and surgical thought, which has been presented in the form of diagnostic and surgical clinics and original contributions. With this issue, Dr. Piersol assumes the editorship of the Clinics and takes over the duties of Dr. Louis Hamman. A new binding, in blue and bright green, makes the volume more attractive. The typography is notably improved and more easily readable.

Warfield Longcope's observations on the course and outcome of streptococcal hemorrhagic nephritis are especially interesting. Sulfanilamide should be administered in doses of from 2 to 4 Gm. daily in nephritic patients; larger doses will accumulate rapidly in the blood, as these kidneys do not eliminate the drug so rapidly as do normal ones.

William Robey discusses acute cardiac dilatation (methods for its recognition and treatment) and acute cardiac injury resultant from non-penetrating wounds. He believes that no injury follows such wounds, despite medicolegal testimony to the contrary. Jeghers furnishes some very interesting cases of vitamin A-deficient adults, whose major complaints were rough, dry skin, difficulty in seeing at night, and chronic fatigue.

Other original contributions concern united fracture of the femur, roentgen-ray diagnosis in medical practice, treatment of wounds (Frederick Christopher advises against the use of antiseptics), pneumothorax in the treatment of tuberculosis, medical and surgical jaundice, non-tuberculous miliary lesions of the lung, newer interpretations of gastric mucosal function, ruptured aortic aneurysm, skin diseases from an emotional standpoint, normal blood pressure (Bordley and Eichina caution the physician never to tell a patient that he has hypertension until several examinations have been made on different occasions), intestinal obstruction, and treatment of

amebic dysentery by means of intracolonic heat.

Even a cursory review of these splendid contributions reveals many valuable clinical facts: (1) Many skin diseases have an emotional basis; indeed, allergic conditions, especially urticaria, may result from psychic stimulation alone or from an allergic stimulant; (2) in the treatment of nasal obstruction caused by hay fever or allergic rhinitis, the oral administration of ephedrine often results in more prolonged relief than does its local application by spray or drops; (3) the administration of digitalis to patients suffering from angina pectoris may result in attacks of pain (as Fenn and Gilbert reported in *J.A.M.A.* in 1932), may result in coronary occlusion, and may possibly bring on fatal ventricular fibrillation.

Hadfield and Garrod: Pathology

RECENT ADVANCES IN PATHOLOGY. By Geoffrey Hadfield, M.D., F.R.C.P., Professor of Pathology in the University of London; Pathologist to St. Bartholomew's Hospital; Formerly Examiner in Pathology in the University of London; and Lawrence P. Garrod, M.A., M.D., B.Ch. (Camb.), F.R.C.P., Professor of Bacteriology, University of London; Bacteriologist to St. Bartholomew's Hospital; Examiner in Pathology in the University of Cambridge. Third Edition. Philadelphia: P. Blakiston's Son and Co., Inc. 1938. Price, \$5.00.

Pathology may now be considered as a much more broad subject than that of "dead-house medicine." It covers the whole range of derangement of function and of organic disease, and as such, implies a firm connection with clinical medicine.

This volume is a good example of the mutual interrelationship between clinic and laboratory. Discussion is made on the pathology of the iron-deficiency anemias, reference is made to the fact that huge doses of iron are needed and the further observations produced that much of this iron is stored in the tissues where it is not available for use. An explanation is at last found for the well-known clinical fact that exophthalmos often does not disappear following thyroidectomy, and can be produced by injections of thyrotropic hormone. Removal of the superior cervical ganglion abolishes the exophthalmos, and therefore the condition must be due to pituitary action on the cervical sympathetic.

Nothing is fixed in medicine; beliefs change with changing thought and research. The process of inflammation, which has been studied so often, is still the subject of dispute. Carefully planned experiments seem to prove the theories of a fibrin barrier against the spread of infection, and agglutination (bacteria become agglutinated to each other and to surrounding tissue). If the latter theory is correct, we must in-

crease our patient's antibodies, as the first and most important step in the battle against infection.

The volume is divided into 17 chapters, which comprise discussions on recent work on diseases of each system of the body. Unlike many of these works, which must build up a harmonious whole from the disjointed studies of many authors, the book has a flowing, smooth literary style.

Gifford: Ophthalmology

PRACTICAL OPHTHALMOLOGY. By Sanford R. Gifford, M.A., M.D., F.A.C.S., Professor of Ophthalmology, Northwestern University Medical School. Philadelphia: W. B. Saunders Co. 1938. Price, \$4.00.

Gifford, bearer of one of the most famous names in ophthalmology, has produced a compact monograph on diseases of the eye that is as fine as any your reviewer has ever seen.

To an immense background of clinical experience, he has added a digest of the worth-while medical literature in his field, and thus provided for the reader a practical, thoroughly documented treatise.

The book discusses causes, symptoms, methods of examination, diagnosis, and both medical and surgical treatment, rather than theory. The chapter on eye symptoms in general diseases is especially worth while.

Such a work is of great value to the general practitioner, and the ophthalmologist will find it a handy guide also. The illustrations are noteworthy.

Atkinson: External Diseases of the Eye

EXTERNAL DISEASES OF THE EYE. By Donald T. Atkinson, M.D., F.A.C.S., Consulting Ophthalmologist to the Santa Rosa Infirmary and the Nix Hospital, San Antonio, Texas; Fellow of the American Academy of Ophthalmology; etc. Second Edition, Revised. 718 pages, 494 engravings. Philadelphia: Lea and Febiger. Price, \$8.00.

The general practitioner needs this book. It shows him the actual appearance of diseases of the eyes, lids, and adjacent skin, through the media of facial masks and clear clinical photographs. Dr. Atkinson is an enthusiastic and ardent student of ophthalmologic conditions. He has succeeded in writing an interesting textbook on eye diseases which is practical.

The section (15) on eye manifestations of systemic disease and subjective eye symptoms is especially valuable. "Nephritis may result in periodic headaches which seem to be referred to the eyes. Elderly patients with arteriosclerosis are apt to be troubled with headaches which seem to emanate from the eyes. In the tertiary

stage of syphilis, quite a similar type of headache is often encountered. A deep, boring pain, which appears to be directly down or behind the eyes, has driven many a patient to the ophthalmologist, when in reality the pathosis responsible for the distress was in the frontal sinus."

The chapter on nasal pathology involving the eye is very illuminating. Other sections discuss (1) diseases of the lids; (2) the lacrimal apparatus; (3) diseases of the orbit; (4) diseases of the conjunctiva; (5) diseases of the cornea; (6) diseases of the sclera; (7) diseases of the iris; (8) diseases of the ciliary body; (9) glaucoma; (10) diseases of the lens; (11) diseases of the external eye muscles; (12) remedies used in treatment of external diseases of the eye. This last chapter has been brought up to date. For example, it is recommended that atropine be used in *very dilute solutions*, to lessen the incidence of atropine conjunctivitis and atropine poisoning. A strength of 0.125 percent is effective.

Cope: Actinomycosis

ACTINOMYCOSIS. By Zachary Cope, B.A., M.D., M.S. (Lond.), F.R.C.S. (Eng.), Surgeon to St. Mary's Hospital, Paddington; Senior Surgeon to Bolingbroke Hospital, Wandsworth Common; Late Hunterian Professor and Arris and Gale Lecturer, Royal College of Surgeons. London: Oxford University Press. 1938. Price, \$7.25.

This is the day of monographs, and Cope's volume is well worthy to stand with any of the medical ones.

Actinomycosis is not a rare disease. It has been recognized for sixty years, during which time several thousand articles on the subject have been published. Monographs have been written in several European languages, but not in English. Dr. Cope states that he has attempted to remedy that omission.

The introduction deals with the history of actinomycosis and actinomyces, the "ray" fungus; then come, in proper sequence, the biologic characteristics, the incidence and etiologic factors, the clinical pathology and clinical features (each chapter devoted to the disease as it affects separate organs, as the face, neck, tongue, abdomen, genitals, liver, lungs, skin, bones and joints, nervous system, thyroid gland, breast, etc.) and the prognosis and treatment of actinomycosis.

Clinical features of the disease are emphasized throughout. The author reiterates the fact that actinomycosis may appear in a mild form and that simple drainage will result in permanent cure, and that the disease may occur in the most unlikely situations and under various guises, so that the only safe rule is always to consider it when dealing with any chronic lesion, whether apparently neoplastic or inflammatory.

Until softening occurs and the pus can be obtained for examination, the diagnosis of actinomycosis is difficult. Biopsy quite

frequently fails to reveal the fungus, because of the extensive induration surrounding the inflammatory process. There are two main types of disease process resulting from invasion of the actinomyces: (1) the chronic, hard type of lesion, and (2) the more acute, soft variety.

Thorndike: Athletic Injuries

ATHLETIC INJURIES: Prevention, Diagnosis, Treatment. By Augustus Thorndike, Jr., M.D., Surgeon in the Department of Hygiene, Harvard University; Assistant in Surgery, Harvard Medical School; Associate Surgeon, Children's Hospital, Boston, Mass. Philadelphia: Lea and Febiger. 1938. Price, \$3.00.

This book will be of definite value to all those persons, be they coaches, trainers, or physicians, who deal with athletic training. It summarizes well the conservative and accepted diagnostic and treatment features. The illustrations, which depict the actual application of dressings and splints, and injured athletes, are very fine.

The prevention of injuries in athletics, the more common types of athletic injuries, and the more common regional injuries constitute the three sections of the volume.

The advice given is eminently sound. It is perhaps unfortunate that a few of the latest developments have not been included (Novocain injection of sprains and contusions is merely mentioned), and throughout there is a definite tendency to limit procedures to those which have been standard for years. Perhaps this latter trend is for the best, as the book will be read by many non-medical persons. For such persons, the book is to be recommended warmly. The experienced surgeon will find many points of value.

Sauerbruch and O'Shaughnessy: Thoracic Surgery

THORACIC SURGERY. By Ferdinand Sauerbruch, Professor of Surgery in the University of Berlin; and Laurence O'Shaughnessy, F.R.C.S., Hunterian Professor in the Royal College of Surgeons of England; Consulting and Thoracic Surgeon to the British Legion Sanatorium, Preston Hall, and to the Nottinghamshire County Council; Consultant Surgeon to the Lambeth Cardiovascular Clinic. Baltimore: William Wood and Company. 1937. Price, \$13.50.

The fastest-growing surgical specialty, thoracic surgery, is here represented by two of its leading exponents. O'Shaughnessy, of London, is known in this country for his implantation of the omentum on the heart muscle, as a method of bringing a fresh blood supply to the myocardium in the treatment of coronary-artery disease. The former author wrote the first book on thoracic surgery ("Die Chirurgie der Brust-

organe") in 1918, which has gone through five editions.

This large, beautifully bound and printed volume discusses every aspect of chest surgery from the standpoint of the general practitioner, internist and specialist, although it does not pretend to be a complete guide to the latter. The surgical treatment is divided into chapters which cover each anatomical division; i.e., chest wall, pleura, lung, pulmonary tuberculosis, heart, mediastinal vessels, thymus, mediastinum, thoracic esophagus, and diaphragm. The technics of thoracic operations in general, thoracotomy, and postoperative care are discussed.

It is to be hoped that this volume will become available to the general practitioner, in order that his knowledge of the great possibilities of thoracic surgery may be brought up to date. Many practitioners do not realize that lobectomy results in a complete cure of unilateral bronchiectasis, nor that coronary symptoms may be relieved by implantation of tissue (omentum or pectoral muscle) bearing a fresh blood supply.

The illustrations are excellent, those in colors being especially delightful.

Few informed patients would care to undergo a chest operation without a preliminary endoscopy being performed to ensure the diagnosis, yet such a procedure seems to be almost the rule in Sauerbruch's clinic.

Lord and Heffron: Pneumonia and Serum Therapy

PNEUMONIA AND SERUM THERAPY. By Frederick T. Lord, M.D., *Clinical Professor of Medicine, Emeritus, Harvard Medical School; Member of the Board of Consultation, Massachusetts General Hospital; Member of the Massachusetts Advisory Committee on Pneumonia, 1931-1935, and Roderick Heffron, M.D., Field Director, Pneumonia Study and Service, Massachusetts Department of Public Health, 1931-1935. Revised Edition. New York: The Commonwealth Fund. 1938. Price, \$1.00.*

Pneumonia takes about 100,000 lives every year in the United States, according to the United States Mortality Statistics. It is the most devastating of the respiratory infections and the third commonest cause of death in the registration area. The general practitioner can advantageously treat pneumonia according to the complete plan of modern therapy presented in this handbook.

Bronchopneumonia may be treated, as well as lobar pneumonia, if it be caused by one of the pneumococci for which there is a specific serum therapy. The paragraphs on the clinical diagnosis of pneumonia eliminate the non-essentials and present the truly important features of differential diagnosis.

The technic of the administration of the serum, precautions to be observed, possible reactions and their treatment, all are given

in detail. Unfortunately, the authors feel that serums have been used so little, in children below the age of 12 years, that their worth has not been established in the pneumonias of childhood. Physicians are loath to use the serums in such cases because (1) the mortality rate is low; (2) it is difficult to get sputum for the typing; and (3) the veins are usually very small, thus rendering repeated intravenous administration difficult. The authors do feel that very sick children should be given the benefits of serum therapy.

Pearson and Hepburn: Physiologic Chemistry

PHYSIOLOGICAL AND CLINICAL CHEMISTRY. By W. A. Pearson, Ph.C., M.D., Ph.D., *Professor and Head of the Department of Chemistry and Physiological Chemistry, Hahnemann Medical College and Hospital of Philadelphia; and J. S. Hepburn, M.S., M.D., Ph.D., Associate Professor of Chemistry and Research Associate in Gastroenterology, Hahnemann Medical College and Hospital of Philadelphia; Assistant Director of the Constantine Hering Research Laboratory. Second Edition. Philadelphia: Lea and Febiger. 1938. Price, \$5.50.*

A thorough knowledge of biologic chemistry is an indispensable basis for the study of modern physiology, bacteriology, immunology, and certain of the specialties.

Laboratory and function tests are presented that have proved of clinical value, and the discussion throughout tends to emphasize the medical aspects of the subject, rather than the strictly chemical phases.

The body of the book is divided into three parts, covering physiological chemistry, foods and metabolism, and clinical chemistry. The authors have done well to keep the second edition from enlarging into an unwieldy volume. Brevity is the soul of knowledge as well as of wit. Students will be delighted at the conciseness of the presentation.

Steel: Clinical Chemistry

BIOLOGICAL AND CLINICAL CHEMISTRY. By Matthew Steel, Ph.D., *Professor of Biochemistry in the Long Island College of Medicine, Brooklyn, New York. Illustrated. Philadelphia: Lea & Febiger. 1937. Price, \$8.00.*

The chemistry of disease, which has been so long neglected, is now receiving the attention to which it is entitled. The recent remarkable advances in biochemistry and biophysics have been incorporated into the field of medicine, and both the physician and physiologist, in their practice and in their teaching, are giving full consideration to the chemical phases of their subjects. The present book is a most valuable contribution to the study of the chemistry of disease.

course in biochemistry is the presentation of the theoretical clinical aspects of the pathologic conditions.

Into this single volume the author has successfully blended the essentials of theoretical and practical biologic chemistry, biophysics, and quantitative clinical chemistry. He has collected material that has hitherto been so scattered that it has necessitated the purchase of three or four volumes to obtain the data here combined in one. From a practical standpoint this synthesis is partially accomplished by having the student use himself as a clinical subject, performing on himself the same tests that are used in clinical cases. Thus he learns, at first hand, the influence of food on metabolism and the significance of the clinico-chemical tests. Metabolic diseases are discussed and a number of clinical specimens are analyzed. Whenever it is possible, the experiments are placed in that part of the subject matter in which they have the greatest clinical significance.

While this work is intended primarily for classroom use, it will be found equally valuable to the physician who wishes to keep pace with the advances in this rapidly expanding field.

Herman: Urology

THE PRACTICE OF UROLOGY. By Leon Herman, B.S., M.D., Professor of Urology, University of Pennsylvania, Graduate School of Medicine; Urologist to the Pennsylvania Hospital and to the Bryn Mawr Hospital; Consulting Urologist to the Methodist Episcopal and Burlington County (New Jersey) Hospitals. 504 Illustrations. Philadelphia and London: W. B. Saunders Co. 1938. Price, Cloth, \$10.00 Net.

This is one of the most practical urologic treatises yet published. Over 500 illustrations depict urologic technic, roentgenograms, and pathologic specimens. McNett's drawings are life-like and beautifully done. The physiology of the kidneys and bladder are well considered.

Operative cystoscopy is described thoroughly, in text and pictures. The colored illustrations of cystoscopic and urethroscopic appearances are worth the price of the volume.

The needs of the general practitioner have been kept in mind and full details are given in diagnosis and treatment.

New Books Received

The following books have been received in this office and will be reviewed in our pages as rapidly as possible.

EMERGENCY SURGERY. By Hamilton Bailey, F.R.C.S. (Eng.) 3rd Edition. Baltimore: William Wood and Company. 1938. Price, \$14.00.

MATERIA MEDICA DRUG ADMINISTRATION AND PRESCRIPTION WRITING. By Oscar W. Bethea, M.D., Ph.G., Ph.M., F.C.S., F.A.C.P. 5th Revised Edition. Philadelphia: F. A. Davis Company. 1938. Price, \$5.00.

THE ROMANCE OF PROCTOLOGY. By Charles Elton Blanchard, M.D. Youngstown, Ohio: Medical Success Press. 1938. Price, \$4.50.

MEDICAL WRITING. The Technic and the Art. By Morris Fishbein, M.D. With the Assistance of Jewel F. Whelan. Chicago: Press of American Medical Association. 1938. Price, \$1.50.

MEDICAL STATE BOARD QUESTIONS AND ANSWERS. By R. Maz Goepp, M.D. 7th Edition, Revised. Philadelphia: W. B. Saunders Company. 1938. Price, \$5.50.

THE NEW INTERNATIONAL CLINICS. Edited by George Morris Picrsol, M.D. Volume II, New Series One, June, 1938. Philadelphia: J. B. Lippincott Company. Price, \$3.00, current year (not sold separately); \$5.00, back years.

PRACTICAL OTOTOLOGY, RHINOLOGY AND LARYNGOLOGY. By Adam Edward Schlanser, M.D. Philadelphia: Lea & Febiger. 1938. Price, \$4.50.

THE LIFE OF CHEVALIER JACKSON. An Autobiography. New York: The Macmillan Company. 1938. Price, \$3.50.

INJECTION TREATMENT OF VARICOSE VEINS AND HEMORRHOIDS. By H. O. McPheeters, M.D., F.A.C.S.; and James Kerr Anderson, M.D., F.A.C.S. Philadelphia: F. A. Davis Company. 1938. Price, \$4.50.

CAUSE AND PREVENTION OF DISEASE. By William Harvey Perkins, M.D. Philadelphia: Lea & Febiger. 1938. Price, \$7.50.

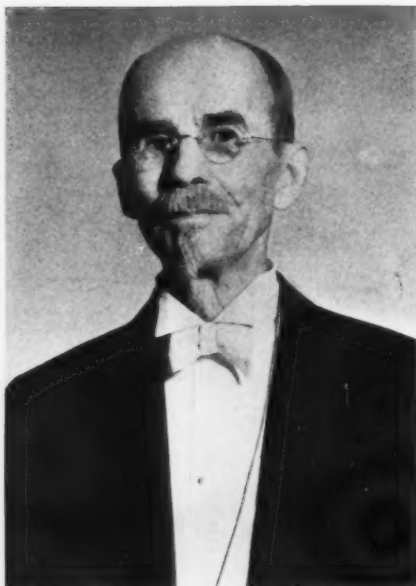
DARMKRANKHEITEN IHRE DIAGNOSE UND THERAPIE. By Prof. Dr. Otto Porges. Berlin and Wien: Urban & Schwarzenberg. 1938. Price, RM 9.—, paper bound; RM 10.50, cloth bound.

THE DECLINE OF WITS. A Biological Problem and a Preliminary Program. By Charles W. Sellers, M.D. Detroit, Michigan: The Inland Press. 1938. Price, \$0.50.

TRAITÉ D'ELECTRO-RADIOTHERAPIE. Under the Direction of L. Delherm and A. Laquerriere. 2 Volumes. Paris, France: Masson et Cie, Editeurs. 1938. Price, 440 fr., stitched; 480 fr., bound; plus 45 fr. tariff.

CHRONIC INTESTINAL TOXEMIA AND ITS TREATMENT WITH SPECIAL REFERENCE TO COLONIC THERAPY. By James W. Wiltzie, A.B., M.D. Baltimore: William Wood & Company. 1938. Price, \$2.00.

Medical News



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Passing of Dr. Abel

WITH THE PASSING, on May 26, 1938, of Dr. John Jacob Abel, professor emeritus of pharmacology at Johns Hopkins University, experimental and research pharmacology lost one of its most distinguished exponents.

Dr. Abel, whose immensely useful life lasted 81 years and was filled with honors, received his degree in medicine from the Faculty of Medicine, University of Strasbourg, France, in 1888; served on the faculties of two universities—Michigan and Johns Hopkins; was the founder, and for 23 years the Editor, of the *Journal of Pharmacology and Experimental Therapeutics*; president of the American Association for the Advancement of Science in 1932; received five prizes and gold medals for his work; and was a member of a long list of learned societies and the holder of many honorary degrees.

His most important work was in the field of endocrine extracts. He and his

associates were the first to isolate epinephrin and insulin in pure crystalline form, and he made important studies on the adrenals and pituitary. The John Jacob Abel Endowment for Research, at Johns Hopkins, financed by the Chemical Foundation, is his permanent and fitting memoria.

Civil Service Examination for Nurses

THE CIVIL SERVICE COMMISSION expects to announce examinations on June 13 for nurse positions in the Indian Field Service (including Alaska), Department of the Interior. The examinations will cover three classes of positions:

Public Health Nurse, \$2,000 a year

Graduate Nurse (General Staff Duty), \$1,800 a year

Nurse Technician (Bacteriology and Roentgenology Combined), \$1,800 a year

There is especial need for persons who are able to meet the requirements for the positions of Public Health Nurse and Nurse Technician. Closing dates for the examinations are July 18 (east of the Mississippi) and July 21 (West and Northwest).

The announcement will show the requirements. Persons interested in such employment may obtain a copy of the announcement, as soon as issued, from the Secretary, Board of U. S. Civil Service Examiners, at any first- or second-class post office, or from the United States Civil Service Commission, Washington, D. C.

Graduate Instruction

THE eleventh annual Graduate Fortnight of the New York Academy of Medicine will be held from October 24 to November 4, 1938. The comprehensive program, which will deal chiefly with diseases of the blood and blood-forming organs, will include clinics, demonstrations, exhibits, and addresses by recognized authorities.

All members of the medical profession are eligible to participate in this valuable instruction. A complete program and registration blank may be procured from Dr. Mahlon Ashford, 2 East 103d St., New York City.



SEND FOR THIS LITERATURE

To Assist You in Obtaining New and Worthwhile Catalogs, Booklets, Reprints, etc., "C.M. & S." will forward your requests for any literature listed in this Department.

Make Use of this Department Both Literature and Service Are Free

- 1 The Pneumonic Lung. Its Physical Signs and Pathology. Denver Chemical Mfg. Co.
- 4 Taurocol. The Paul Plessner Co.
- 5 Specific Urethritis—Gonoson "Riedel." Riedel & Co., Inc.
- 6 Dr. Weirick's Sanitarium. Dr. G. A. Weirick.
- 8 *Journal of Intravenous Therapy*. Loeser Laboratory, Inc.
- 9 Elixir Bromaurate in the Treatment of Whooping Cough and other Cough Disorders. Report of Cases. (Booklet.) Gold Pharmacal Co.
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